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New York.

CONTRIBUTIONS FROM
THE MUSEUM OF THE AMERICAN INDIAN
HEYE FOUNDATION
Volume II, Number 1

EXPLORATION OF
A MUNSEE CEMETERY NEAR
MONTAGUE, NEW JERSEY

BY
GEORGE G. HEYE
AND
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NEW YORK
THE MUSEUM OF THE AMERICAN INDIAN
HEYE FOUNDATION
10 EAST THIRTY-THIRD STREET

1915 -

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INTRODUCTION

() N the banks of the Delaware river between Port Jervis, New York, and the Delaware Water Gap, there are many village sites and a few burial places. For years it has been known that this section offered a rich field for archeological study, but prior to the explorations herein described it remained practically neglected. The shores of the river, both in New Jersey and in Pennsylvania, afford broad reaches of arable land, and along this stretch of the stream are several flat islands. The New Jersey side especially furnished suitable level places for camps and for farming, and on these numerous evidences of aboriginal habitation are found.

Dr Edward S. Dalrymple, of Branchville, New Jersey, had done some work on this site twelve or fifteen years before, and after his death a collection made by him had come into the possession of the Museum of the American Indian.

In 1913 the writers made a reconnoissance of the Delaware valley between Dingman's Ferry and Port Jervis. The most promising site for archeological excavation was found on the farm of Burson W. Bell, Esq., near the town of Montague, in Sandyston township, Sussex county, New Jersey. The results of the exploration of this burial place form the report herein presented.

The work of the Museum of the American Indian was commenced at the close of April, 1914, and was continued until early in July, when, during the writer's absence, the arrest of his men, on the charge of violating a statute prohibiting the disturbance of human burials, was caused by a local politician who believed that by keeping strangers out of his district he would gain the favor of his constituents.

The judicial history of the case, which will be of interest to future investigators of American archeology, is as follows:

On July 2d, 1914, one John Van Sickle went before Justice of the Peace John E. Whitney of Newton, New Jersey, and made a complaint against George G. Heye that he "did remove the remains of deceased persons to deponent unknown from their graves and places of sepulture in the old Minisink Graveyard in said township (Sandyston) from mere wantonness," and thereupon a warrant was issued for Mr. Heye's arrest. Mr. Heye hearing that a warrant was out for his arrest, by an arrangement with the District Attorney of Sussex County, attended at Newton with his counsel on July 20th, 1914, submitted to arrest, waived indictment and had a trial on that date before the Sussex County Court of Special Sessions, and upon said trial was convicted and sentenced to pay a fine of \$100.

Mr. Heye carried his conviction on a Writ of Error to the Supreme Court of New Jersey and the case came up on appeal before the November term of said court, which reversed the conviction in an opinion a copy of which is annexed hereto.

NEW JERSEY SUPREME COURT.
NOV. TERM, 1914.

The State,

vs.

George G. Heye,

Error to the Sussex Special Sessions Court.

Argued before Gummere, Chief Justice, and Justices Garrison and Minturn.

For the plaintiff in error, Robert S. Hudspeth.

For the State, William A. Dolan, Prosecutor of the Pleas Per Curiam:

The defendant was tried and convicted under the 148th section of the Crimes Act, which makes it a high misdemeanor for any one to remove a body of any deceased person from his grave or tomb for the purpose of dissection, or for the purpose of selling the same, or from mere wantonness.

The facts show that the plaintiff in error was an anthropologist, who, while looking for Indian relics in Sandyston township, Sussex County, came across a burial place used by the Indians who inhabited that part of the state two or more centuries ago; that he removed two or three of the skeletons which he found there for the collection of the New York Anthropological Society; about the same number for the Museum of the University of Pennsylvania; and several more for the United States Government at Washington. He did this with the consent of the owner of the land upon which these remains were found. On these facts he was convicted.

It may be that in what plaintiff in error did he violated the laws of decency

not aware, but it does not seem to us that he brought himself within the purview of the 15th section of the Crimes Act.

The court did not remove these skeletons for the purpose of dissection; nor was it shown that he did it for the purpose of making sale of them. His conviction was rested upon the theory that his act was one of mere wantonness. We do not think this conclusion sound. He took them for a specific purpose; and a thing done for a specific purpose, whether that purpose be one which the public generally will approve or disapprove, cannot be said to have been done in mere wantonness.

We conclude the judgment under review should be reversed.

The writer wishes to acknowledge the generous coöperation and interest taken in this work by Mr Burson W. Bell, the owner of the property on which the cemetery was situated, and to Mr Randall D. Sayre, of Milford, Pike county, Pennsylvania, who added greatly to the collection by the gift of a fine jar found by him on Minisink island directly opposite the cemetery.

G. G. H.

HISTORICAL DATA

As the part of Sussex county under consideration was probably richer in natural resources than any similar area in the State of New Jersey, from the earliest days it has furnished material for historical accounts, and the archives of the state are replete with documents which record the troubles between the native tribes and, at a later period, the inroads of white settlers. The region which particularly concerns us here comprises the townships of Sandyston and Montague in the northwestern corner of Sussex county (fig. 1). James P. Snell, in his *History of Sussex and Warren Counties*, pp. 361-362, published in 1881, says:

The Minisink patent, of historic memory, embraced the valuable lands of Montague, lying along the banks of the Delaware, and their fertility and natural advantages early attracted to this favored locality the Dutch settlers from Esopus. The township was thus made memorable and before the white man had cleared the forests in other portions of the country. From the easy fords at the Minisink, Indian trails diverged, one west to the Wyoming Valley, along the Susquehanna River; north, by Lattantown, the peninsula of Pike County, to the mouth of the Lackawaxen on the Delaware; south, through Culver's Gap, to the ponds and

hunting-grounds of the Kittatinny valley; and northeast, via the Delaware, to the Machackemack River and corresponding valleys.

The most valuable portion of the famous "Minisink patent" lay within the boundaries of Montague. It embraced that fertile tract of land extending from the mouth of the "Machackemack" at Carpenter's Point,

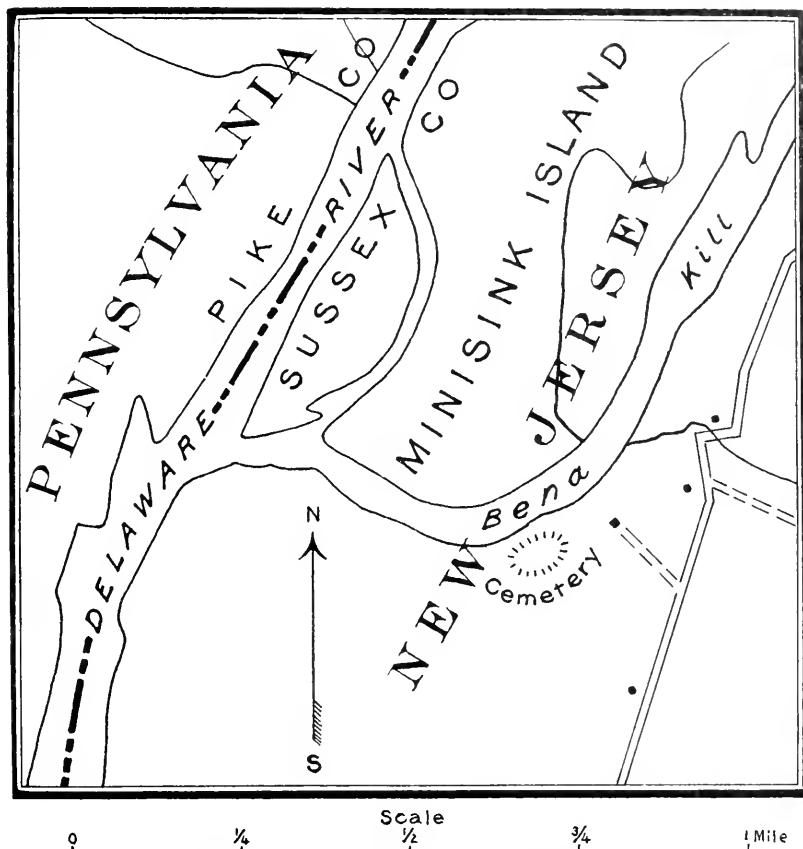


FIG. 1.—Map showing the location of the Minisink cemetery.

down the left bank of the Delaware River to the lower point of "Great Minisink Island." This patent covered the two largest and most fertile islands of the Delaware River, with the adjoining flats along the Jersey shore,—Mashipacong Island, lying between Carpenter's Point and the Brick House, and Minisink Island, lying below the Brick House. These

two islands alone contain 1000 acres of cultivated land, and, together with the shore flats and grazing-lands between the extremes named, more than 10,000 acres of the quality of land so highly prized by the Low-Dutch settlers was included in the Minisink patent. The settlement first made was located opposite the lower end of the Island (which gave name to the patent referred to), upon the higher portion of Minisink flats, just at the foot of the ridge on the south running parallel with the river. This settlement took the name of Minisink. A small grist-mill was erected upon the stream which here discharges its waters into the Bena Kill, between the residences of Daniel D. Everitt and Jacob Westbrook, Esq., the former residence being within the township of Montague and the latter in that of Sandyston, as this stream here forms the boundary line between these townships for a short distance from the river. Johannes Westbrook settled upon one side of this small stream of water, and Daniel Westfall (said to have been his son-in-law) upon the opposite bank, where Mr. Everitt now resides. The Westbrook family was early represented by three brothers, who located at Minisink soon after 1700.

The precise period at which the Dutch and Huguenot settlers entered the Minisink valley is uncertain. We have positive documentary evidence that there was a considerable colony of settlers at the Neversink and in the Minisink valley, including both of the Minisink Islands, prior to the beginning of the eighteenth century. A voting precinct, with a municipal organization, was laid off there before this date, which implies a considerable number of voters; and by an act of the Provincial Assembly of New York, passed Oct. 18, 1701, "for the more Regular proceedings in the Election of Representatives," the "inhabitants of Wagachemick (Neversink) and Great and Little Minisink (Islands)" were "empowered to give their votes in the County of Ulster." The evidence clearly substantiates the fact that there were many settlers in the Jersey Minisink previous to 1700.

The Indians which occupied this area were the Munsee, with possibly a few Unami, both divisions of the Delawares. According to the *Handbook of American Indians*¹:

The Munsee [whose name, according to Hewitt, is derived from *Munsee mink*, 'at the place where stones are gathered'] originally occupied the headwaters of Delaware river in New York, New Jersey, and Pennsylvania, extending south to Lehigh river, and also held the west bank

¹ *Bulletin* . . . Bureau of American Ethnology, pt. 1, Washington, 1907.

of the Hudson from the Catskill mountains nearly to the New Jersey line. They had the Mahican and Wappinger on the north and east, and the Delawares on the south and southeast, and were regarded as the protecting barrier between the latter tribe and the Iroquois.

Their council village was Minisink, probably in Sussex county, New Jersey. . . . The Minisink formed the principal division of the Munsee, and the two names have often been confounded. . . . By a fraudulent treaty, known as the 'Walking Purchase,' the main body of the Munsee was forced to remove from the Delaware about the year 1740, and settled at Wyalusing on the Susquehanna on lands assigned them by the Iroquois. Soon after this they removed to Alleghany river, Pennsylvania, where some of them had settled as early as 1724.

About 1720 the Iroquois assumed dominion over them, forbidding them to make war or sales of lands, a condition which lasted until about the opening of the French and Indian war. Many of them had originally removed from the west bank of Delaware river to escape the inroads of the Conestoga.

E. M. Ruttenber,¹ writing of the Minisink, says:

West of the Esopus country, and inhabiting the Delaware and its tributaries, were the *Mensis* proper of whom a clan more generally known as the *Minnisinks* held the south-western parts of the present counties of Orange and Ulster, and north-western New Jersey. Van der Donck describes their district as "Minnessinck of 'tLandt van Bacham," and gives them three villages: Schepinaikonck, Meochkonck, and Macharienkonck,² the latter in the bend of the Delaware opposite Port Jervis, and preserved perhaps in the name Mahackemeck. On Sauthier's map, Minnisink, the capital of the clan, is located some ten miles south of Mahackemeck, in New Jersey. Very little is known of the history of the clan as distinguished from the tribe of which they were part, although the authorities of New York had communication with them, and the missionary, Brainerd, visited them. Tradition gives to them the honor of holding the capital of the tribe in years anterior to the advent of the Europeans.

In a later work³ Ruttenber describes the town and the tribe as follows:

¹ *History of the Indian Tribes of Hudson's River*, Albany, 1872, p. 96.

² On the original map of Van der Donck (see our pl. i) these names are spelled Meoechkonk, Mecharienkonck, and t'Schepinaikonck, respectively.

³ *Footprints of the Red Men. Indian Geographical Names in the Valley of the Hudson River*, 1906, pp. 220-222.

Minisink, now so written and preserved as the name of a town in Orange County, appears, primarily, in 1656, on Van der Donck's map, "Minnessinck otte t'Landt van Bacham", which may be read, constructively, "Indians inhabiting the back or upper lands," or the highlands. Heckewelder wrote: "The *Minsi*, which we have corrupted to *Monsey*, extended their settlements from the Minisink, a place named after them, where they had their council seat and fire," and Reichel added, "The Minisks, *i. e.*, the habitation of the Monseys or Minsis." The application was both general and specific to the district of country occupied by the Minsi tribe and to the place where its council fire was held. The former embraced the mountainous country of the Delaware River above the Forks or junction of the Lehigh Branch; the latter was on Minnisink Plains in New Jersey, about eight miles south of Port Jervis, Orange County. It was obviously known to the Dutch long before Van der Donck wrote the name. It was visited by Arent Schuyler, a credited interpreter, who wrote, in his Journal, Minissink and Menissink as the name of the tribal seat. Although it is claimed that there was another council-seat on the East Branch of the Delaware, that on Minisink Plains was no doubt the principal seat of the tribe, as records show that it was there that all official intercourse with the tribe was conducted for many years. Schuyler met sachems and members of the tribe there and the place was later made a point for missionary labor. Their village was palisaded. On one of the early maps it is represented as a circular enclosure. In August, 1663, they asked the Dutch authorities at New Amsterdam, through *Oratamy*, sachem of the Hackinsacks, "For a small piece of ordnance to use in their fort against the *Sinnakas* and protect their corn." (Col. Hist. N. Y., XIII, 290.) In the blanket deed which the tribe gave in 1758, to their territory in New Jersey, they were styled "Mensis, Monseys, or Minnisks." *Mensis* and *Monseys* are convertible terms of which the late Dr. D. G. Brinton wrote: "From investigations among living Delawares, *Minsi*, properly *Mensi*, formerly *Min-assin-in*, means 'People of the stony country,' or briefly, 'Mountaineers.' It is the synthesis of *Minthiu*, 'to be scattered,' and, *Achsin*, 'stone,' according to the best native authority."

In writing of "The Indians under the English," Ruttenber¹ says:

The *Minnisks* hesitated at first to embark in the war [of 1688], and sent Paxinos, their chief, to New York to consult with Governor

¹ *History of the Indian Tribes of Hudson's River*, p. 178.

Dongan in regard to the matter.¹ They subsequently contributed their quota, however, and rendered important service.

At the outbreak of the war the *Shawanoes* were contesting the advance of the *Iroquois* in the South, and were also engaged in war with the *Cherokees*. In the latter they suffered severely, and but for the timely aid of the *Mahicans*, would have been destroyed. The *Lenapes* [Delawares] invited them to remove to their country; the invitation being accepted, the *Mensis* brought the matter to the attention of the government of New York, in September, 1692, on an application to permit their settlement in the Minnisink country. The council gave its assent on condition that they should first make peace with the Five Nations.² This was soon effected, and the messengers departed, accompanied by Arnout Vielle, an interpreter, and three Christians, to visit the country of the *Shawanoes* and consummate the transfer. . . . Captain Arent Schuyler visited the *Mennisinks* in February, and there learned that the *Shawanoes* were expected early in the ensuing summer. This expectation was realized.³

The following journal of Captain Arent Schuyler's visit to the Minnisink country⁴ in 1693 or 1694 is given in full, as it is the first account of an official visit to this section.

Journal of Captain Arent Schuyler's Visit to the Minnisink Country.
May it please your Excell.

In persuance to yr Excell: commands I have been in the Minnissinck Country of which I have kept the following Journall: viz⁴

169³₄ y^e 3^d of Feb: I departed from New-Yorke for East New-Jersey and came that night att Bergentown where I heired two men and a guide.

y^e 4th Sunday. Morning. I went from Bergen & travilled about ten English miles beyond Haghkingsack to an Indian place called Peckwes.

y^e 5th Monday. From Peckwes North and be West I went about thirty-two miles snowing and rainy wether.

¹ This the author amplifies by the following note: "'Ordered, that a message be sent to Minnisinks, to order them to send up their young men to Albany to join with the Five Nations against the French.'—*Council Minutes*, May 6, 1688."

² River Indians returned from a residence with the Shawanoes, brought with them some Shawanoes who intended to settle with the Minnisinks, asking permission to that end. Council directed that the Shawanoes must first make peace with the Five Nations.—*Council Minutes*, Sept. 14, 1692."

³ Ruttenber, *History of the Indian Tribes of Hudson's River*, pp. 180-181.

⁴ *Documents Relative to the Colonial History of the State of New York*, vol. iv, pp. 98-99, Albany, 1854.

y^r 6th Thursday, I continued my Journey to Maggaghkamieck¹ and from thence to within half a days Journy to the Mennissinck.

y^r 7th Wendsday, About Eleaven a Clock I arrived att the Mennissinck, and there I mett with two of ther Sachems and severall other Indians of whome I enquired after some news, if the French or their Indians had sent for them or been in y^e Mennissinck Country Upon wth they answered that noe French nor any of the French Indians were nor had been in the Mennissinck Country nor there abouts and did promise y^t if y^e French should happen to come or y^t they heard of it that they will forthwith send a mesinger and give y^r Excellency notice thereof.

Inquireing further after news they told me that six days agoe three Christians and two Shañwans Indians who went about fifteen months agoe with Arnout Vielle into the Shañwans Country were passed by the Mennissinck going for Albany to fech powder for Arnout and his Company; and further told them that s^d Arnout intended to be there wth seaven hundred of y^e said Shañwans Indians loaden wth beavor and peltreis att y^r time y^e Indian Coarn is about one foot high (which may be in the month of June.)

The Mennissinck Sachems further s^d that one of their Sachems & other of their Indians were gone to fech beavor & peltreis which they had hunted; and having heard no news of them are afraid y^t y^e Sinneques have killed them for y^e lucar of the beavor or becaus y^e Mennissink Indians have not been wth y^e Sinneques as usiall to pay their Dutty, and therefore desier y^t your Excēll. will be pleased to order y^t the Senneques may be told, not to molest or hurt y^e Mennissincks they being willing to continue in amity with them.

In the afternoon I departed from y^e Minnissincks; the 8th, the 9th, & 10th of Feb. I travilled and came att Bergen in y^e morning and about noone arrived att New Yorke.

This is may it pleas your Excēll. the humble reporte off your Excellency's most humble servant,

ARENT SCHUYLER.

Another early reference to the Minisink village appears in the work of Thomas Budd,² published originally in 1685:

¹ The Indian name of the river Neversink, which falls into the Delaware, a little east of Port Jervis, Orange County, New-York. *Eager's History of Orange County*, 392. — E.D.

² *Credit Order L. established in Pennsylvania & New-Jersey in America.* Reprinted, Cleveland, 1902, p. 26.

From the Falls of Delaware River the Indians go in Cannows up the said River, to an Indian Town called Minisincks, which is accounted from the Falls about eighty Miles; but this they perform by great Labour in setting up against the Stream; but they can come down with ease and speed; the River from the Falls runs from the North and North-West and about twenty miles, as I my self observed in my Travel so far by the River, but by the Indians Information, it cometh about more Easterly farther up. I have been informed, that about Minisincks, by the River-side, both in New-Jersey and Pennsylvania is great quantities of exceeding rich open Land, which is occasioned by washing down of the Leaves and Soil in great Rains from the Mountains, which Land is exceeding good, for the raising of Hemp and Flax, Wheat, or any other sorts of Corn, Fruits, Roots &c.

In the second edition of Adriaen Van der Donck's *Beschryvinge van Nieuw-Nederlandt*, published at Amsterdam in 1656, appears a map of "Nova Belgica sive Nieuw Nederlandt" (see our pl. i). On the Zuydt Rivier (the South or Delaware), at a point some distance south of and on the same side as the town called Mecharenkonck, there is a locality designated "t'Schichte Wacki" on the map. This is the exact situation of the Minisink town. The meaning of the full name is unknown, but *wacki* signifies "place of." Ruttenber,¹ in speaking of the Minisink, says: "Their village was palisaded. On one of the early maps it is represented as a circular enclosure."

Incorporated in a work published in 1747² is a map showing an old Indian trail extending from Navesink, on Shrewsbury river, just south of Sandy Hook, to the bank of the Delaware, ending at a point opposite Minisink island at approximately the place where Minisink village and its burial place were situated. This trail, as shown on the map, is called "Minisink Path. Indian Path from Navesink to Minisink." Minisink island is likewise shown. This is another indication that Minisink was the most important settlement of the tribe, probably its council village.

¹ *Footprints of the Red Men*, op. cit., p. 221.

² *A Bill in the Chancery of New Jersey at the Suit of John Earl of Stair, and others, Proprietors of the Eastern-Division of New Jersey against Benjamin Bond and some other Persons of Elizabethtown, Distinguished by the Name of the Clinker Lot Right Men.* With three maps. New York, James Parker, 1747.

Eadon's map of The Province of New Jersey¹ places "Minising" at the mouth of the small stream which is given the name of "Minising Creek or West Brook." The town is represented by three small pyramids. "Minising Island" is also shown.

The Minisink village is noted, with varied orthography, on a number of early maps, but the only one that indicates what might have been intended as a symbol for a circular enclosure is that of Sauthier,² dated 1779, which represents the village by means of a small circle surrounded by five pyramidal figures; the circle, however, is such as is generally employed for indicating any village. This cartographer locates the Minisink settlement on the northern bank of a small unnamed stream that flows into Bena Kill at this point.

On a Historical Map of Pennsylvania³ there is shown on the Delaware river, opposite Minisink island, at approximately the place where the cemetery stood, three parallel marks, and "Mine-sink I. T.," meaning Indian town. The island is given as "Minising Island."

It should here be noted that the names of abandoned villages were frequently retained on early maps as if the settlements themselves were still inhabited.

PREVIOUS ARCHEOLOGICAL WORK IN THE VICINITY

L. W. Brodhead⁴ gives a description of graves opened in a cemetery near the Delaware Water Gap. He says:

The following extracts from a letter written by a gentleman who, with others, visited the Indian burial-place near the Gap, in the autumn of 1865, is deemed not out of place in this connection. The letter was published in the North American and United States Gazette: "Various

¹ Eadon's *North American Atlas*, London, 1777.

² A *Cosmographical Map of the Province of New York in North America*, London, February 1, 1779.

³ *Historical Map of Pennsylvania showing the Indian Names of Streams and Villages, and Paths of Travel, etc.*, edited by P. W. Shearer, and others. Publication Fund of the Historical Society of Pennsylvania, Philadelphia, 1875.

⁴ *The Delaware Water Gap: Its Scenery, its Legends and Early History*. Second ed., Philadelphia, 1879, pp. 113, 124.

localities of interest are pointed out as the sites of Indian villages and burial-grounds. . . . One of these early cemeteries has long been regarded with interest by visitors to the Gap and residents of the neighborhood. In vain, however, did those desirous of exploring it apply for permission to the proprietor of the soil. But . . . certain parties met, not having the fear of Mr. Zimmerman . . . before their eyes, and under the cover of night and a dense young forest, perpetrated that which men of science had ineffectually attempted. It may not positively be known what articles have been taken from the despoiled graves, but I have been informed that among the articles found was a finely wrought stone pipe. With this digression, I will give a brief account of our operations to-day. We found the cemetery composed of numerous 'graves,' in close proximity to one another. These were scarcely distinguishable, so slight is the elevation. Each grave is encircled by a trench, and a group of some half a dozen had evidently been surrounded by a gravel ditch. The circumvallation was quite distinct. Selecting an undisturbed spot, we put a couple of stout men to work. Removing the soil, we were convinced human agency had been at work. Instead of the gravel, which marks the diluvial, we found a coarse yellow sand, intermingled with clay. At the depth of about two and a half feet, we found an ulna, or some other parts of a human frame. The skeleton was in tolerable preservation. The cranium is in good condition, with the exception of a portion of the right superior maxillary, which appeared missing. The teeth are in good preservation, but much worn by the use of maize. The sections indicate a person of about middle age. The frame was large, and doubtless that of a male. The mode of burial had been by inhumation; placing the body in a recumbent posture, extending from east to west, the face looking eastward. A slight cist had been excavated, which received the body, free from cement or stone incasement, and having placed with it the few personal articles which ornamented it in life, a careful covering of sand was made to the height of the cist, and terminating in a small tumulus. The sand had evidently been carried from the river's beach, as it is not found at a nearer point. This is a peculiarity, and worth attention. Of the articles of personal adornment recovered were parts of two metallic ornaments, brooches, or ear-drops, found in close proximity to the head. They are an alloy, pewter perhaps, circular in form, and two inches in diameter. Also, two spiral wire springs of brass, one inch in length and half an inch in diameter, and three bone or shell beads, one quite large. These are by far the most valuable and interesting relics recovered, as they are purely aboriginal, while the metallic articles

are of European fabrication. In addition to those discovered was the rude form of a pocket-knife, but so oxidized as to be almost undistinguishable. Of course, these articles, with the exception of the bone beads, are of white men's manufacture, and utterly valueless to the archaeologist."

We incorporate the following extract from *Bulletin 40 of the New York State Museum* concerning archeological work conducted by that institution in 1900:

In September the assistant in archeology was sent to Port Jervis to excavate the site of a Minsi village and burial ground . . . Little or nothing is known regarding the archeology of the Minisins nor was it possible to determine from an examination of the Port Jervis site much concerning their culture except in the line of their mortuary customs.

The Van Etten site, the site of the Minsi village and burial place is found on the Levi Van Etten farm on the east bank of the Minisink river, two miles from Port Jervis. Excavations conducted during the months of September and October, 1900, by the assistant in archeology resulted in the discovery of 30 graves and several hearths and refuse pits. The latter contained little of interest, only a few potsherds and rude flints being found with them. An examination of the burials proved that the Minisins had for some time been influenced by the white men about them. Some of the skeletons seem to have been buried in rough wooden boxes. The position of all skeletons found in what appeared to be the remains of boxes was the extended position instead of the flexed position generally found in old burials in this State. Most of the objects found in the graves were of European origin. These objects include beads of several sizes and shapes, brass and iron finger rings, brass bracelets, brass bells of two forms, one bronze soup spoon, one clay pipe stamped R. Tippet, and brass buttons. The aboriginal artifacts found in the graves were all shell ornaments, probably pendants or gorgets.

In 1872 Ruttenber¹ described this site as follows:

On the east bank of the Neversink river, three miles above Port Jervis, on the farm now or late of Mr. Levi Van Etten, exists an Indian burial ground, the graves covering an area of six acres. Skeletons have been unearthed, and found invariably in a sitting posture, surrounded by tomahawks, arrow-heads, etc. In one grave was found a sheet iron tobacco box containing a handkerchief covered with devices, employed doubtless to preserve the record of its owner's services.

¹ *History of the Indian Tribes of Hudson's River*, Albany, 1872, p. 96.

SITUATION OF THE MINISINK CEMETERY

From the foregoing historical data it is evident that the burial place excavated by the Museum of the American Indian belonged to the Munsee and that it was near the site of Minisink. The cemetery is on what was originally the Westbrook estate in Sandyston township, but is now owned by Burson W. Bell, Esq., who married a descendant of the Westbrooks, the property having remained in continuous possession of the family for seven generations. The site lies four miles southwest of the Milford toll-bridge, on both sides of the historic "Mine road," the portion on which the cemetery was situated stretching from this highway to the bank of Bena Kill, which forms the eastern boundary of Minisink island.

For many years the Bell farm has been noted in connection with a so-called "Indian fort," situated a short distance from the Bena Kill, which is merely the ruin of an old stone house said to have been used by the settlers in repelling attacks of Indians. Many evidences of Indian occupancy have been found on the surface, and about twenty years ago Dr Edward S. Dalrymple, of Branchville, New Jersey, unearthed a number of skeletons in a sandy plain near the bank of the creek. Since that time Mr Westbrook, Mr Paul Tooker of Westfield, New Jersey, and others have dug into the burial place, and four years ago Mr Bell, the owner of the farm, in plowing on the opposite or sloping side of the hill, unearthed the skeleton of a child with which were several shell ornaments as well as objects of European manufacture.

The cemetery proper is on the south bank of the Bena Kill, opposite the lower end of Minisink island. At this point the creek bluff is about thirty feet in height. Near the bank the surface is level, but it stretches inland, forming a series of low sand-dunes. The eastern end of the burial area has the appearance of a low, broad mound, and for convenience of reference it will be known as such in this paper. A few hundred feet east of the mound are a series of higher dunes having the form of ridges: these are at the lower edge of the plateau that extends to the base of the range which parallels the river.

The mound presented no physical indication of its use as an

aboriginal cemetery. It extends several hundred feet from the bank of the stream, but only the portion nearest the creek was utilized for burial purposes. It is a natural sand-dune, similar to the dunes of greater or lesser height that extend for miles along the New Jersey bank of the Delaware, but when examined by our party numerous stone implements and potsherds were found on its surface. On the crest of the mound, fragments of human bones, including portions of skulls, and parts of tubular shell beads were found. These had been upturned by the plow, thus indicating the shallowness of some of the burials.

Max Schrabisch, in his "Indian Habitations in Sussex County, New Jersey,"¹¹ describes Minisink island and also the village site on the mainland. Concerning Minisink island, he says:

This island lies about 15 feet above normal water level of Delaware River and is practically level. There was a camp site and fishing place at its northern end, where arrow-points of flint and jasper as well as net-sinkers of a type quite common in Delaware Valley and usually consisting of flat oval pebbles notched on opposite sides were once fairly abundant. Situated as it is in the immediate neighborhood of the Great Minisink village and separated from it only by the river channel, it may seem strange that it was apparently the site of only one camping ground, although the fact that it is flooded wholly or in part in periods of high water probably accounts for this. However, scattered relics were found in at least two places.

Continuing, he speaks of the village as follows:

The Great Minisink village was situated directly south of Minisink Field on high level land overlooking Delaware River. Artifacts of every description have been found here, and many of them are now in Barton Bell's collection. . . . A burial ground adjoins the village site, many of the graves encroaching upon and intermingling with the lodge sites.

In speaking of the discoveries made by Mr. Bell, he writes:

One grave discovered accidentally by Mr. Bell while ploughing, contained some extraordinary rare objects, exhibiting the highest degree of workman-hip ever attained by the Leni Lenape. Along with a piece

¹¹ *Publication of the Geological Survey of New Jersey*, 1915, pp. 28-30.

of burnt mica, a piece of zinc, a stemmed jasper scraper and twelve dark blue beads, he found eight white stone tubes, one-quarter of an inch in diameter and from two to four inches long, used perhaps by the medicine man to draw disease from the sick. But the *pièce de résistance* were two exquisitely carved ornaments of an immaculate white color, representing hawks or eagles. These ornaments, designated as ceremonial objects (bannerstones), mark perhaps the grave of a chief and are now in Bell's collection.

The shell birds mentioned by Mr Schrabisch, now the property of the Museum of the American Indian, are herein described and illustrated (figs. 12, 13). Mr Schrabisch gives two crudely drawn and rather misleading sketches of these ornaments, which he designates "bannerstones." The "stone tubes," also in the Museum of the American Indian, are in reality shell ornaments, under which caption they are described in the present paper.

PREVIOUS WORK IN THE CEMETERY

Dr Dalrymple evidently did considerable digging in the northwestern part of the mound, but, so far as known, no measurements or photographs were taken. His investigations proved that the Indian inhabitants had been in contact with white settlers and that some of the bodies had been buried within the historical period. There is sufficient evidence to show that at least fifteen skeletons were exhumed by this investigator. With one of the bodies, that of a child, was a copper kettle; a silver spoon; a necklace composed of two shell beads, two glass beads, eleven thimbles, and one bell, tied to which were the remains of a deerskin thong; a bone comb; and eight copper bracelets which

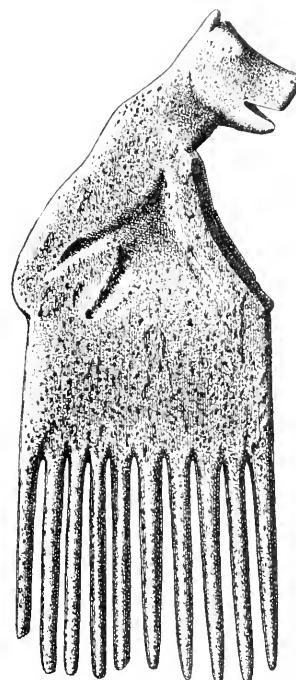


FIG. 2.—Bone comb found by Dr Dalrymple.

were found on the right wrist. Graphite and animal bones also were found in the grave. The skeleton lay 18 in. beneath the surface, the skull directed S.

The bone comb found in this grave is shown in figure 2; it measures $3\frac{1}{2}$ in. in height and $1\frac{3}{8}$ in. in width. The upper part is ornamented with the figure of a wolf or a dog. The neck and head of the animal are carved in the round, the shoulders project, and the legs are in low relief. Similar combs are not uncommon in Iroquois sites in the State of New York.

With most of the skeletons exhumed by Dr Dalrymple nothing was found; with one, however, there was a pewter pitcher, a pair of copper ear-ornaments, and seven shell beads.

INVESTIGATIONS BY THE MUSEUM OF THE AMERICAN INDIAN

Owing to the fact that human remains had been removed from various parts of the mound, a series of test trenches were dug. The first, extending through the southeastern edge, gave no indication of disturbed soil. The second trench was dug nearer the eastern exposure, and it was here that the first indications of burials were encountered. From this point trenches were dug to the extreme northwestern part of the burial area, and ultimately the greater part of the mound was excavated. The position of each burial is shown on the accompanying plan (pl. II).

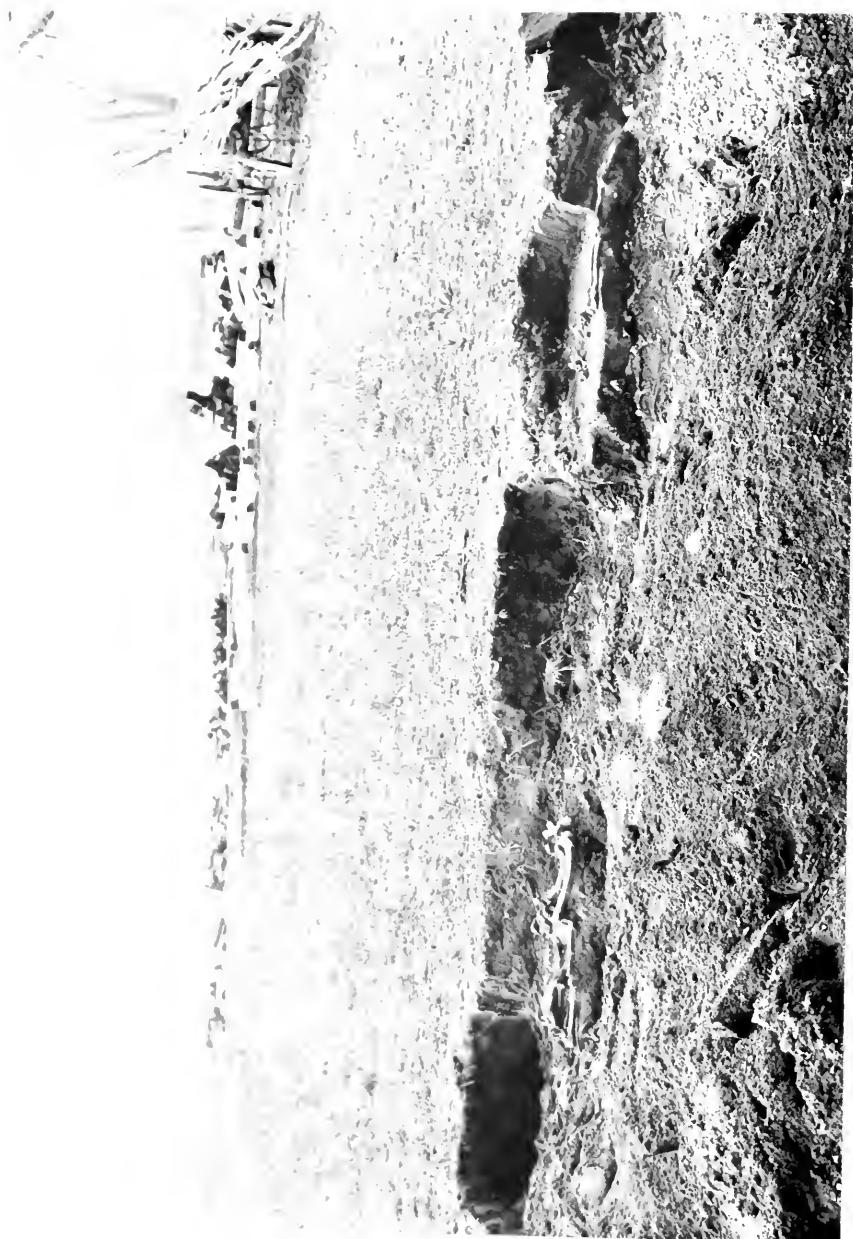
THE BURIALS

The first evidence of disturbed earth was noted at the central part, just below the surface soil and extending to a depth of 4 ft. 8 in., its greatest width being 2 ft. 6 in. At a depth of 2 ft. 6 in., half of a pitted hammerstone, split by fire, was found. Just above, at the edge of this disturbed soil, was a large piece of deer antler. There were traces of charcoal in this pit, but no evidences of a burial.

A second pit was encountered near this one; in size it was practically the same as the one just described. In it, at a depth of 2 ft. 1 in., a pestle and a flat stone were found.

Following is a description of the burials uncovered during the excavations in the cemetery.

SKELETON 2 (AT THE RIGHT) AND SKELETON 3 (AT THE LEFT) IN SITU IN THE EASTERN PART OF THE CEMETERY



Skeleton 1, which lay 3 ft. 3 in. below the surface, was that of an old person, but only a portion of the skull and a few other bones grouped about it were found. This may have been a reburial, but as there were indications of the burrowing of groundhogs in the mound, the missing bones may have been carried to the surface by these animals.

Skeleton 2, that of a child, was found in clearing away the surface soil. The body lay on its back in an extended position with the legs together, the right foot folded over the left; the cranium was 10 in. below the surface. The bones of the lower part of the body were in place, but above the pelvis all the bones had been disturbed and the cranium had been torn apart, a portion of it being missing. The body lay NE by SW, the head directed toward the latter point. The disturbed sand of the mound extended but a few inches below the skeleton. Above the burial were pieces of charcoal, a few deer-bones, and fragments of pottery, but no objects were in direct association. (See pl. III.)

Skeleton 3, an adult, lay on its right side, the body extending NE by SW, the head having been toward the SW. The legs were flexed and the arms extended along the sides of the body. The pelvic bones were one foot below the surface, but the skull doubtless was somewhat shallower and had probably been destroyed by plowing, as no positive trace of it could be found. Fragments of the skull of an adult found on the surface near this point, however, may have belonged to this burial. Nothing was found with the skeleton. (See pl. III.)

Skeleton 4 consisted of part of a cranium and a mass of ribs and other bones of a child. These remains were grouped in the lower part of and just below the surface soil. The cranium had been broken, no doubt by plowing, the disturbed portion resting on the frontal bone. The occiput was $7\frac{1}{2}$ in. below the surface. Nothing was found with this burial.

Skeleton 5, an adult, lay extended NE by SW in the surface soil, an inch above the undisturbed sand. The head had been directed SW. The upper part of the body had been disturbed, both the cranium and the lower jaw being missing, but below the

pelvis the skeleton was complete. The upper part of the pelvic bone was only $\frac{3}{2}$ in. beneath the surface. Nothing was found with this burial.

Skeleton 6, an adult, undisturbed, lay on its right side, the legs flexed, the arms bent upward, the hands under the chin. The top of the cranium was 14 in. below the surface. Under and around the hands and beneath the chin were a large number of small glass beads, and also under the chin were two small pieces of chipped flint. Above the neck were thirty-seven large, spheroidal, glass beads, and two beads made of olivella shells. A few inches from the occiput a flat piece of limestone was found. Between the arms and just below the point of the chin were two clay pipes of European manufacture (pl. iv, *a*; xv, *b, a, c*). Two feet west of the skeleton were evidences of a feast-pit, shown by a discolored area, irregular in shape, in which were found pieces of charcoal, fragments of split animal bones, two potsherds, and three arrowpoints.

Skeleton 7, a child, was on its back, with arms against the sides and legs extended. The skull was crushed, as if a heavy weight had pressed upon the frontal bone. The body lay NE by SW, the head toward the SW, 13 in. below the surface. About the neck and under the chin were twenty-one small, black, glass beads, a large bead of white glass, and six shell disc-beads. The disc-beads were lying in a row with the glass beads between them. Between two of the disc-beads were four of glass, each pair being connected with a small, dull-green, tubular bead of copper, the salts of which had preserved the cord, thereby holding the beads, which formed a necklace, in their original position. The restored necklace is shown in plate viii, *a*. A photograph of the skeleton is reproduced in plate iv, *b*.

Skeleton 8, that of an adult, was lying NE by SW, with the head in the latter direction. The skull, which was broken, together with the upper part of the vertebrae, had been displaced, and the bones of the lower part of the body had likewise been disturbed. The body was lying on its back, with arms extended. Within two inches of the cervical vertebrae was a deposit of wire ornaments and five tubular shell beads, and the remains of what seemed to be



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a. SKELETON 6 WITH EUROPEAN CLAY PIPES



b. SKELETON 7, AN EXTENDED BURIAL

a rush bag, in which evidently the objects had been buried. The shell beads lay under the mass and rested on a piece of bark. At the ends of some of the shell beads were two glass beads, as shown in plate v, b; others had but one glass bead at the end. As there were ten glass beads in the deposit, it is probable that the beads had formed a necklace and that two glass beads alternated with the shell tubes. The wire pieces were in the form of flat coils, but were broken and corroded to such an extent that their original form could not be determined. From the position and condition of the deposit, and from the fragments of fiber found above and below the objects, it would seem that the ornaments had been wrapped in a piece of bark, or placed in a fiber bag which was then wrapped in bark. In removing the cranium a shell pendant (fig. 8, a) was found. The upper part of the cranium was discolored by contact with red paint, pieces of which still adhered to it. Another portion of the cranium was stained with copper salts, but the metal that caused it had disappeared. (Pl. v, a.) Southeast of the leg-bones and joining the burial was a feast-pit extending to a depth of one foot below the skeleton. In this pit, and nearly a foot below the level of the leg-bones, a large piece of the rim of a jar was found, likewise a number of chipped stones, and deer-bones that had been cracked evidently for the purpose of extracting the marrow. Throughout the pit were pieces of charcoal, and above the objects mentioned were numerous animal bones, potsherds, and a broken drinking-cup made of the carapace of a box-turtle.

Skeleton 9, an adult, $7\frac{1}{2}$ in. below the surface, lay NE by SW, on its right side, the legs flexed, and the skull directed SW. The left arm was in front of the face, the hand under the chin. There were no accompaniments.

Skeleton 10, a child, was found 16 in. below the surface. The skull lay with the occiput toward the south; the other bones were grouped about and under it, the major portion being on the northern side of the skull, thereby showing that, like most of the other burials, the body had been interred with the head toward the SW. The skull, a few of the vertebrae, and the ribs, were the only bones present. This may have been a reburial, which would account

for the missing parts. Under the chin were three triangular shell pendants (fig. 8, *b-d*), and a shell ornament shaped like a porpoise (fig. 15). Sixty-five glass beads were found with the pendants.

Skeleton 11 was that of an adult. The bones had been disturbed; the skull lay at the southwestern end of the scattered bones. Many of the vertebrae were ankylosed. Deer-bones and charcoal were found intermingled with the bones of the skeleton, but these evidently were the remains of a feast, as there was a feast-pit immediately northeast of and in juxtaposition to the skeleton, in which were two large pieces of a pottery jar, evidently in their original positions. One of the leg-bones of the skeleton lay just above the pottery, but no doubt it had been forced out of place when the other bones were disturbed. Above and around the sherds of the jar were pieces of charcoal and animal bone.

Skeleton 12 was that of an adult, the skull of which was 14 in. below the surface. The body was lying on its back, with legs extended; the arms lay parallel with the sides of the body, and the hands rested on the pelvis. The tibiae, fibulae, and foot-bones had been disturbed. The skull, which was directed SW, had been crushed, but was lying in its natural position, with the lower jaw in place. No artifacts were found with this burial. The discolored sand continued west of the skeleton, but there were comparatively few animal bones in it.

Skeleton 13, an adult, the skull 11 in. below the surface. The body lay on its right side, with the legs flexed and the skull toward the SW. The arms were bent upward; the hands rested against the chin. A bear-tooth, found directly beneath the skull, was the only accompaniment of this burial.

Skeleton 14, a child, with the skull 13 in. below the surface. The body lay on its back, with legs extended and with the arms at the sides. The skull, which was crushed, was directed SW. A piece of limestone rested on the chest. The bones of the skeleton had been disturbed.

Skeleton 15, a child, 18 in. below the surface. The bones were scattered and the cranium was missing. There were no burial accompaniments.



a. SKELETON 8 WITH DEPOSIT OF ORNAMENTS NEAR SHOULDER



b. BEADS AND WIRE ORNAMENTS WITH SKELETON 8

Skeleton 16, a child, 17 in. below the surface. The cranium had been crushed. The body lay extended on its back, the skull directed S. A small flat stone was found under the jaw.

Skeleton 17, a child, the skull 20 in. below the surface. The body was on its back, with legs extended and the head pointing SW. Under the jaw were nine tubular beads and one spherical shell bead, also many small glass beads, and eighteen beads of yellow glass made to represent grains of corn.

Skeleton 18, a young child, lying on its back, with legs extended. The skull, which had been crushed, was toward the SW and lay $6\frac{1}{2}$ in. beneath the surface. A few inches below the jaw and resting on the upper ribs was a bird ornament of shell (fig. 10). About the neck were a number of small glass beads, and nine cylindrical shell beads. This body had been interred over another (*Skeleton 19*)—the only instance of a superimposed burial in the mound.

Skeleton 19, which lay 14 in. below *Skeleton 18*, was that of an old person. The body evidently had been lying on its side, with legs flexed and the head toward the SW. The skull had fallen from its normal position and lay nine inches below the cervical vertebræ; the occiput was upward and the lower jaw a few inches above it.

Skeleton 20 is that of a white man of the Scandinavian or Nordic type. It was buried on its right side, with legs flexed. The cranium was 11 in. below the surface and was directed SW. The bones were in their normal positions, but most of them, including the skull, had been broken, as though by pressure. In the mouth cavity a piece of rock crystal was found.

Skeleton 21, an adult, 8 in. below the surface. The bones, especially the skull, were broken and disturbed, but the general position showed that the head had been toward the SW. Nothing was found with the burial.

Skeleton 22, a child, lay on its back, 8 in. below the surface. The skull had been crushed, and the bones were broken and scattered, but the head had been toward the SW. Nothing was found with this burial.

Skeleton 23, an adult, lying on its left side with arms and legs

flexed, and with the hands above the head. It was 16 in. below the surface; the head was directed SW. There were no accompaniments.

Skeleton 24, an adult, 10 in. below the surface; lying on its back, with head toward the SW. The arms were akimbo, with the hands resting on the pelvis. The legs were extended, the left crossing the right at the ankles. Resting against the left shoulder was a deposit of objects consisting of two flints and fragments of a steel, two circular mirrors with metal backs (pl. XVI), a clay pipe of European manufacture (pl. XIV, b, d), and a pewter pipe (pl. XIII, c).

Skeleton 25, a young child, 15 in. below the surface. The body was lying E and W, with the skull toward the W. The skull was crushed and the other bones were in bad condition. Nothing was found with the burial.

Skeleton 26, a child, lying on its back, with legs extended. It was 8 in. below the surface; the head was directed SW. The bones had been disturbed and were in bad condition; the skull was crushed. Lying so that it nearly touched the lower jaw was a long shell pendant shaped like a lamprey eel (fig. 16), and below it was a shell disc (fig. 6).

Skeleton 27, a child, 14 in. below the surface. It was lying N and S, with the skull toward the S. The skull was badly crushed and the bones of the body were much decayed. Nothing was found with it.

Skeleton 28, an adolescent, lying on its back, with legs extended and with arms at the sides. It was 7 in. below the surface; the head was toward the SW. The skull was crushed, but the other bones were in their normal positions. Six inches beneath the skeleton and a little to the west of it was a layer of clam-shells under which was a hammerstone and several deer-bones.

Skeleton 29, 9 in. below the surface, was that of a child which was lying on its back. The arms rested at the sides, the legs were extended, and the left foot was crossed over the right. The body was lying with the head toward the SW. When the first indication of this skeleton was encountered, careful search was made in the earth that had been thrown out with a few finger-bones. In this



d. SKELETON 31 WITH DEPOSIT OF BONE TUBES AND PIPES



b. BONE TUBES AND PIPES, AND UPPER PART OF SKELETON 31

were two shell crescents (fig. 4), a metal spoon (pl. xvii), six catlinite beads of irregular form, a tubular shell bead, and many small glass beads, all of which evidently had been held in the right hand. Near the left knee a small metal bell (pl. xvii) was found. Not far from the pelvic arch and resting against the left femur was a deposit of ornaments consisting of a shell disc, a small metal bell (pl. xvii), and a catlinite bead with serrated edge.

Skeleton 30, a child, the skull of which lay 14 in. below the surface. It was lying extended on its back, the skull directed E, the arms at the sides and the legs extended. On the breast and almost touching the lower jaw was a bird ornament of shell (fig. 11); below and around it were many small glass beads. Under the right cheek-bone was a cylindrical shell bead. The shell bird and this bead are shown in plate vii, *a*. About the neck were the beads of a necklace, of which the shell bird no doubt was the pendant. This necklace consisted of six shell disc-beads, nine wampum beads, and a number of glass beads. The number of disc-beads is the same as that noted in connection with Skeleton 7, and the necklace evidently had been similar in form, the relative position of the pieces being shown in plate viii, *a*. Small pieces of red paint were mingled with the beads, and under the occiput was a mass of similar material. (Pl. vii, *b*.)

Skeleton 31, an adult, lying on its right side, with legs flexed. It was 13 in. below the surface, and the head was toward the SW. On the right side of the body, near the ribs, was a clay pipe (pl. xiv, *b, b*) that evidently had been broken before being deposited with the burial, as the stem was lying below the stem of a pewter pipe, while the bowl was level with the latter. The bowl of the pewter pipe (pl. xiii, *a*) was beneath a deposit of six bird-bones which probably had been used as medicine tubes (pl. vi).

Skeleton 32, an infant, lying NE and SW, with the head toward the SW. It was 17 in. below the surface, and many of the bones were missing. There were no accompaniments.

Skeleton 33 was that of an adult which lay on its back with the arms at the sides. It was 9 in. below the surface, with the head SW. The skull, which was broken, lay in a mass of red paint and char-

coal. Near the left upper part of the skull was a fragmentary turtleshell rattle, only a portion of the carapace of which remained, but the fragments show that it had been drilled. The lower part of the shell was broken, but all the pieces were recovered and show the instrument to have been ornamented with a design formed by drilled holes as shown in plate xi and figure 18. Mingled with the fragments of the rattle were 35 small glass beads, and 26 small pebbles which no doubt had been contained in the instrument when in working condition.

Skeleton 34 was that of an adult, found 10 in. below the surface, lying on its back with the legs extended, and with the head SW. No objects were found with it.

Skeleton 35, an adult, lay 14 in. down, the skull directed SW. The bones are well preserved, but nothing was found with them.

Skeleton 36, an infant, 11 in. down, with the head toward the SW. The leg-bones were missing and the other bones were badly decomposed. Below the lower jaw and resting on the chest were eight shell pendants, six of which represent owls (fig. 9), and two shell ornaments in the form of fish, also a number of shell and glass beads.

Skeleton 37, a child, was found lying on the right side, with the legs flexed. The head was toward the SW and was 1 ft. 9 in. below the surface. The hands were clasped under the head. Resting on the upper part of the skull were 45 shell beads.

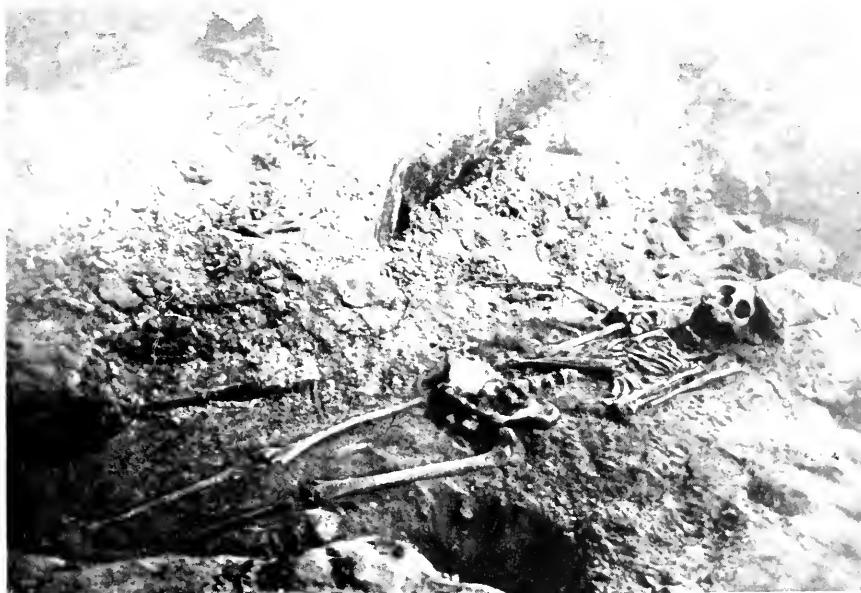
Skeleton 38, an adult, found 1 ft. 7 in. down, consisted of a mass of dissociated bones that had been reburied.

Skeleton 39, an adult, lay on its back, with the head toward the SW and 11 in. below the surface. The hands were clasped on the breast. An upturned brass kettle (pl. xiv, a) was found with the rim resting on the forehead. Near the right scapula was a clay "trade-pipe," and under it another of similar size and make (pl. xiv, b, c, f). Near the pipe were three flints such as were used for striking fire. At one side of and near the pipes were two round mirrors in metal frames (pl. xvi), and in the right hand were two flints similar to those found near the pipes. (Pl. vii, b.)

Skeleton 40 was that of an adult; it was found 1 ft. below the surface and had been previously dug. No objects accompanied the burial.



a. SKELETON 30 WITH SHELL BIRD AND TUBULAR SHELL BEAD



b. SKELETON 39 WITH BRASS KETTLE ON HEAD

Skeleton 41, an adult, lying on its left side, with legs flexed and head toward the W, was found 1 ft. 7 in. below the surface. The right hand rested against the pelvis, the left was under the skull. The left humerus and ulna were ankylosed at the elbow. Nothing was found with the body.

Skeleton 42, an adult, lay 7 in. below the surface. The skull was badly broken, and the bones of the upper part of the body had been disturbed, probably by plowing. The legs were flexed and their position showed that the body had rested on its left side. Nothing was found with it.

Skeleton 43, an adult, was represented by a mass of dissociated bones. The pelvis was 7 in. below the surface. This burial had been previously dug.

Skeleton 44 was that of an adult; it was lying on its back, with body extended; the skull was toward the SW, rested on its left side, and was 15 in. below the surface. On the right scapula was a short, round flaking-tool of antler, and under the skull was a bone awl (pl. x, b, f) and a bone flaking-tool.

Skeleton 45 was that of an adult, lying on its left side, 18 in. below the surface, with the skull toward the SW. The leg-bones, the bones of one foot, and those of the left arm were missing.

Skeleton 46, an adult, lay 2 ft. 3 in. below the surface. This burial had been previously dug.

Skeleton 47 was that of an adult, lying with its head toward the SW and 16 in. below the surface. Part of the skull was missing, and the upper part of the body had been disturbed.

Skeleton 48, an infant, was found 13 in. below the surface and with its head toward the SW. The bones were in poor condition and had been disturbed.

Skeleton 49, an infant, was in very poor condition; it was found 17 in. below the surface, with the skull toward the SW.

Skeleton 50, an adult, lay 1 ft. 10 in. below the surface, with head toward the SW. The bones are well preserved, but the burial had been disturbed.

Skeleton 51 was that of a small child and was found 1 ft. below the surface. The only remaining portion was the skull, which was

badly crushed, but slight traces of decomposed bone showed that the head had been directed SW. Near the left side was a small brass kettle (pl. XIV, A), also a number of small, red glass beads.

Skeleton 52 was that of an adult and was found 1 ft. 8 in. below the surface. The bones had been disturbed and the skull was missing.

Skeleton 53 was that of an adult; it lay 16 in. below the surface and was extended on its back. The skull, which was badly broken, lay toward the SW. On the left wrist were four brass bracelets (pl. XV) and fragments of others. The ulna and the radius had been discolored by the salts of the metal. On the left scapula were two large shell pendants, each in the form of a fish (fig. 14). Under the chin were a number of small glass beads, also a small copper bead and another of catlinite.

Skeleton 54, extended on the back, was that of an adult and was found 16 in. below the surface, with the skull toward the SW.

Skeleton 55, that of a child, was found 9 in. down. It was lying extended on its back, with the head toward the SW.

Skeleton 56, an adult, was found 8 in. below the surface, with the head toward the SW; it rested on its right side, and the legs were flexed. The hands were under the chin. The lower leg-bones were deformed.

Skeleton 57, that of an adult, was found 15 in. below the surface, with the head toward the SW; it was lying on its right side, with legs flexed and hands under the chin. On the right side, and extending from the lower jaw to the pelvis, was a pewter pipe (pl. XIII, B) the rim of which is ornamented in relief with the figure of a wolf or a dog.

Skeleton 58, a child, lay extended on the back, 1 ft. beneath the surface, with the skull toward the SW. The arms were at the sides of the body. In each hand was a mass of fused iron. In association with this burial there were evidences of a feast, for over the body there was a broad discolored area in which were much charcoal and many cracked animal bones, mostly those of deer. Other burials showed evidences of accompanying feast-pits, but none was so strongly marked as this.



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Skeleton 59, an adult, was 1 ft. 8 in. below the surface, with the head toward the SW. The body was lying on its right side; the legs were flexed. About the neck was a metal chain (pl. xvii). Seven cylindrical shell beads, and a shell pendant in the form of a beaver (fig. 17), were found at the back of the neck.

Skeleton 60, that of an adult, was found extended on its back, 13 in. below the surface, with the head toward the SW. The left hand was on the chest; the right was at the side of the body. A broken bowl rested on the head.

Skeleton 61, an adolescent, was found 15 in. below the surface, with the head resting on the right side, directed toward the SW. The skeleton lay on its back, with the body extended and the hands under the skull. Under the left shoulder were 130 small shell beads in rows, their position suggesting that they had formed part of a woven band, the beads of which were arranged as are those in a typical wampum belt.

Skeleton 62, a child, lay 1 ft. 9 in. below the surface, with the head toward the SW. The skull was broken.

Skeleton 63 was that of an adult; it was found 18 in. below the surface, with the head directed SW. The burial rested on its left side and the legs were flexed. The bones were in very poor condition.

Skeleton 64, an adult, 12 in. below the surface, with head toward the SW. The upper part of the body had been disturbed, but the leg-bones, which were flexed, were in position. The body was interred lying on its right side.

Skeleton 65, a child, 8 in. down. The bones had been disturbed and were in bad condition.

Skeleton 66, a child, 7 in. below the surface, with head toward the SW. The body lay extended on the back. Under the chin was an elaborately carved shell gorget (fig. 7) and fragments of iron. A bear-tooth also was found with the body.

Skeleton 67, an adult, the bones of which were in poor condition, was found extended on its back only 2 in. beneath the surface, the skull directed SW. On the left shoulder were two native pottery pipes (pl. xii, *a b*), fragments of iron just above the pipes, and a piece

of flint. The bowl of one of the pipes, which represents a human figure, was directed toward the skull; that of the other pointed toward the feet.

Skeleton 68, an adult, was found 40 in. below the surface, lying on its right side, with legs flexed and with the head toward the SW. The hands were under the chin.

All the skeletons that it was found possible to preserve have been presented to the United States National Museum, where they are now being studied by Dr Aleš Hrdlička. In the accompanying table is presented all necessary information in regard to the physical features of the burials encountered, so far as the present paper is concerned. An exhaustive report on the skeletons, by Dr Hrdlička, will be published in the near future.

A summary of the positions of the skeletons, so far as it was determinable in each case, is as follows:

Extended.....	28
Flexed.....	17
Disturbed.....	18
Previously dug.....	3
Reburial.....	1
Bones decomposed.....	<u>4</u>
	68

OBJECTS ASSOCIATED WITH THE BURIALS

SHELL ORNAMENTS

DISCS

Prof. W. H. Holmes, in his "Art in Shell of the Ancient Americans,"¹ says:

I present a number of illustrations of a class of relics which have occasionally been mentioned in literature, and which are represented to some extent in our collections. As these objects resemble beads rather more closely than pendants, I shall refer to them in this place, although Mr. Schoolcraft considers them badges of honor or rank, and treats them as gorgets. He describes them as consisting of a "circular piece of flat

¹ Second Ann. Rep. Bureau of Ethnology, p. 228.



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BIRDS AND TUBULAR BEADS OF SHELL FOUND IN THE CEMETERY BY MR. BURSON BELL

shell, from one and a half to two inches in diameter, quartered with double lines, having the devices of dots between them. This kind was doubly perforated in the plane of the circle."

In "Notes on the Iroquois," by the same author, we have a much fuller description. He says that "this article is generally found in the form of an exact circle, rarely a little ovate. It has been ground down and repolished, apparently, from the conch. Its diameter varies from three-fourths of an inch to two inches; thickness, two-tenths in the center, thinning out a little towards the edges. It is doubly perforated. It is figured on the face and its reverse, with two parallel latitudinal and two longitudinal lines crossing in its center, and dividing the area into four equal parts. Its circumference is marked with an inner circle, corresponding in width to the cardinal parallels. Each division of the circle thus quartered has five circles, with a central dot. The latitudinal and longitudinal bands or fillets have each four similar circles and dots, and one in its center, making thirty-seven. The number of these circles varies, however, on various specimens."

Dr William M. Beauchamp,¹ in referring to Schoolcraft's description of this class of ornaments, says:

"The form described by Schoolcraft is usually indented at the edge, where each perforation begins, and the cross lines are sometimes omitted. The small circles and dots have no meaning, the number being regulated by the space to be occupied. They were apparently made by a small circular steel drill, having a central point. . . . The parallel holes from edge to edge served to keep the necklace flat when strung, and this feature is frequent in pipestone ornaments. . . . Beverley, in his *History of Virginia*, p. 145, calls these runtees, and says "they are made of the conch shell, as the peak is, only the shape is flat and like a cheese, and drilled edgeways."

Dr Beauchamp states also that these objects were probably made by white men, and "may be the round shells used as presents in one New York Council." With this we cannot agree, for the irregular shape of the discs found in the Minisink cemetery, in connection with the irregular ornamentation, points to aboriginal workmanship. Dr Beauchamp further states that Professor Holmes is correct in his assumption that these ornaments were

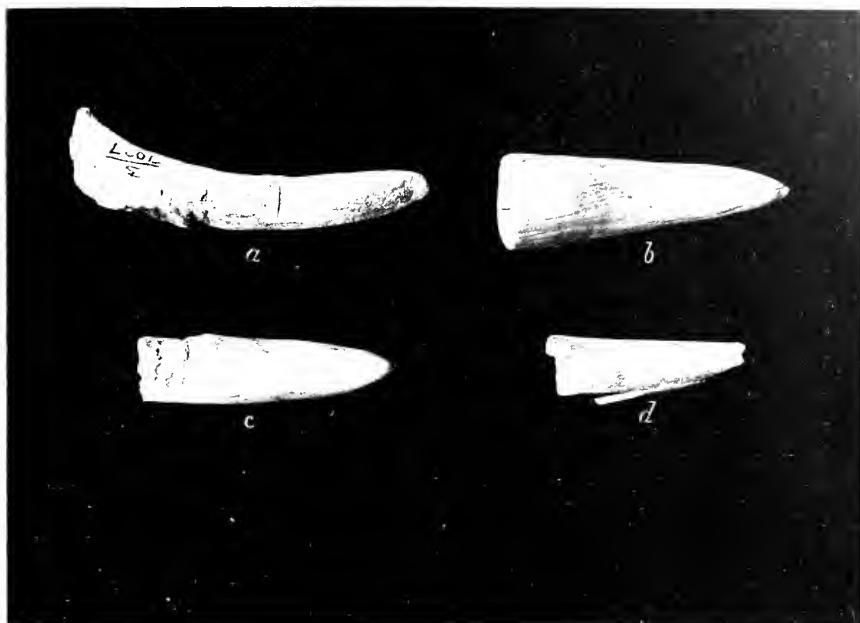
¹ Wampum and Shell Articles Used by the New York Indians, *Bulletin of the New York State Museum*, No. 41, Albany, 1901, p. 373.

beads rather than pendants, and adds that "several strings of these have been found just as they were deposited with the dead."

With two of the skeletons (7 and 30) in the cemetery, neck ornaments composed in part of these discs were found in position. With Skeleton 7 were six disc-beads, and with them twenty-one small black glass beads, two cylindrical metal beads, and one white shell bead of oval form. The glass beads were found between the discs, there being in one instance four of these and two of the metal beads in place and still adhering to the original cord. Their position showed conclusively the interval between the disc-beads, and the number of small shell beads used in alternation. Twenty-one of the glass beads were found. As twenty is the number of these required to complete the necklace, the remaining bead may have been used in connection with the white glass bead to form a pendant, or there may have been another six-bead spacing at the end of the string, which would have preserved the proper alternation of discs and beads when the necklace was in use.

The manner of wearing the disc-beads has been discussed by various authors. It is generally believed that they were used as necklaces, but the manner of stringing them differed. The finding of the necklace with Skeleton 7 enables us to determine the actual method of stringing these discoids when used in connection with smaller beads. Plate VIII, *b*, illustrates the necklace in its original form and shows the discs in actual size. The drilling is indicated, and on the edges where the perforations begin there are indentations, one at the mouth of each opening (probably due to abrasion by the small glass beads with which they were strung), giving the intervening space the appearance of a projection. The discs are thick in the center and taper toward the edge. They had been ornamented by incising, but the surfaces have disintegrated to such an extent that only traces of the decoration remain.

Six shell discs of similar size and form were found about the neck of Skeleton 30 (pl. VIII, *a*). Four of them are decorated on both faces with transverse bands crossing at the center; the other two show only slight traces of such lines. The disc shown in figure 3 is the most perfectly preserved. Both sides bear the same



1. ANTLER ARROWPOINTS AND PIECES OF WORKED ANTLER



B. TYPICAL BONE AWLS FOUND IN THE MOUND

decoration. The central square formed by the crossing of the incised bands is plain, while in each of the diverging bands there are four dots. The drilling of these discs is of the same character as that shown in the series found with Skeleton 7, but the surfaces of three of the discs with Skeleton 30 (the first, second, and fifth from the left) do not taper from the center toward the edge, while the other three taper only slightly. Intermingled with these disc-beads and occupying the spaces between them were 144 small glass trade-beads, nine ordinary white and purple wampum beads, and a cylindrical glass bead similar in size and color to the wampum. The small glass beads no doubt filled the intervals between the disc-beads, as did the glass beads forming part of the necklace with Skeleton 7. The wampum and the cylindrical glass bead may have formed the strand from which the bird pendant found on the breast of the skeleton was suspended. It may be seen in position in the photograph of this skeleton (pl. vii, *a*), and near it, in the shadow of the upper jaw, a badly weathered portion of a large tubular bead. The size and general form of the bird pendant is shown in figure 11. It was drilled through the neck for suspension. From evidence afforded by more perfect specimens of similar form it is probable that the upper surface was ornamented, but decomposition of the shell has obliterated all traces of decoration.

Near the pelvis of Skeleton 29 was a shell disc-bead, identical in drilling and in uniformity of thickness with the beads found with

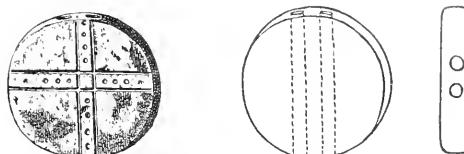


FIG. 3.—Shell disc found with Skeleton 30.

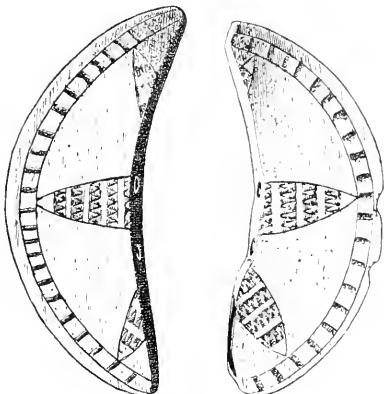


FIG. 4.—Crescent-shaped ornaments of shell found with Skeleton 29.

Skeleton 7. Near the right hand a deposit of shell and glass beads was found, also a few beads of catlinite. With this deposit were two crescent-shaped beads or pendants (fig. 4), alike in size and ornamentation, and both drilled for suspension. Here the drilling takes the form of the double perforation noted in connection with the disc-beads. The outer edge of each pendant, which forms the segment of a circle, is carefully finished, but the concave edge is irregular and crudely worked. Examination of these specimens suggested that they might have formed parts of a large gorget. The spacing of the radiating ornaments supported this belief, which was strengthened by the occurrence of the section of part of

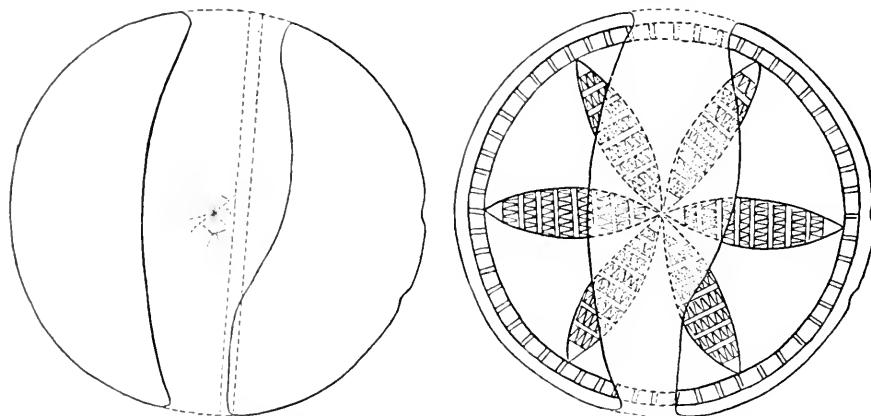
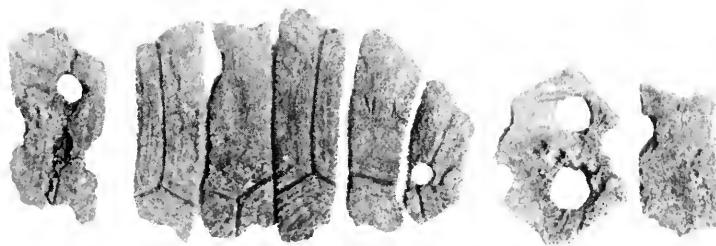
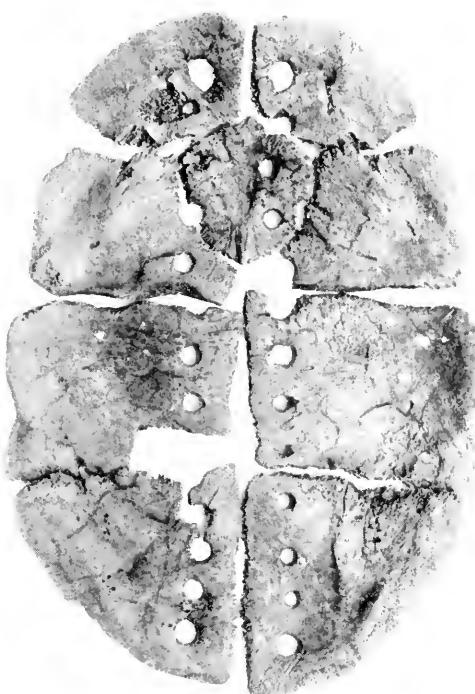


FIG. 5.—Gorget restored from crescents (fig. 4) found with Skeleton 29.

an old lateral drilling, and finally confirmed by assembling the two reworked fragments and restoring the design of the original gorget as shown in figure 5. This design is similar to that on a specimen from Pompey, New York, figured by Beauchamp, and practically duplicates the central design of the shell gorget shown in our figure 7. In figure 5 an outline of the original disc is shown, with the line of the old drilling indicated by dotted lines. From the position of this drilling, which was to one side of the center, it is probable that the disc had been doubly perforated. The crescents are practically uniform in thickness. The edges are slightly rounded from wear.

With Skeleton 26 another shell disc was found. As shown in



FRAGMENTARY TURTLESHELL RATTLE FOUND WITH SKELETON 33

figure 6 it is similar to the ones that accompanied Skeleton 7, being of the type that decreases in thickness from the center to the edge. The ornamentation is practically identical with that on the discs found with Skeleton 30, the only difference being the presence of a dot in the central square. The disc is drilled, but there is only one perforation, whereas all the others are doubly pierced. This disc was found under the lower jaw of the skeleton,

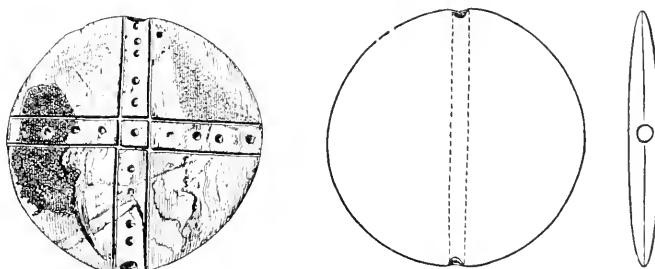


FIG. 6.—Shell disc found with Skeleton 26.

and near it was a shell ornament in the form of a fish. As no small beads were found in association, it is probable that these ornaments were used as pendants.

GORGET

The largest and most ornate of shell ornaments of the disc type found with the burials is a gorget which accompanied Skeleton 66 (fig. 7). It evidently was made from a portion of the outer wall of a conch. The design is deeply incised. The holes for suspension are drilled through the central portion, which bears an ornamentation similar to that shown in figure 5, which illustrates the restored gorget found with Skeleton 29. There are six divisions in this design, and the same number is shown in the heart-shaped figures that form the major portion of the ornamentation. As the reproduction of this object is of natural size, a detailed description of the design is unnecessary. It is, however, an unusually good specimen of a type of shell ornaments seldom found in eastern burial sites.

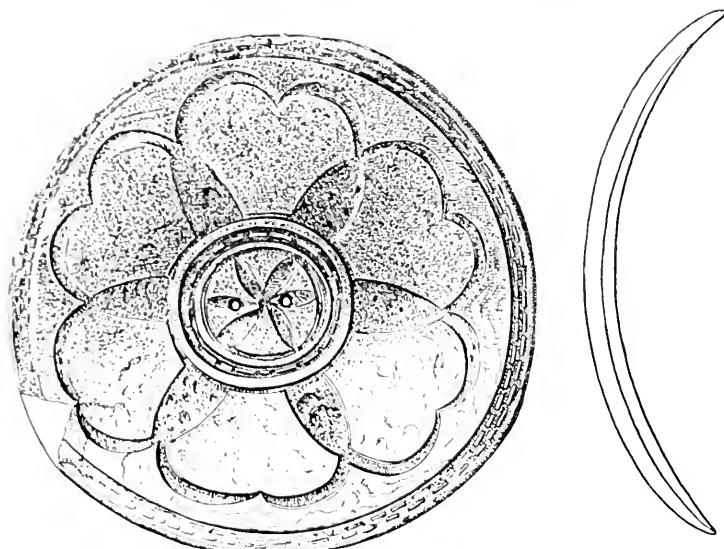


FIG. 7.—Shell gorget found with Skeleton 66.

TRIANGULAR PENDANTS

With the skeletons four triangular shell pendants were found. The largest of these (fig. 8, *a*) was under the skull of Skeleton 8. It is very thin and the surface is much disintegrated. A hole has been drilled through the upper part, but only a portion of it remains.

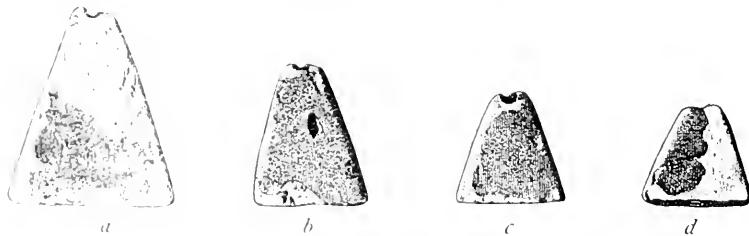


FIG. 8.—Triangular shell pendants found with Skeletons 8 and 10.

The other three triangular pendants were found under the lower jaw of Skeleton 10. In form they are similar to that first described, but the perforation for suspension is drilled through the longer axis, as shown in figure 8, *b-d*.

There is no evidence of ornamentation on any of these pendants.



POTTERY PIPES OF NATIVE WORKMANSHIP
a, b, Found with Skiditon 67. *c*, Found in Western Part of Cemetery

BIRD FIGURES

Shell ornaments in the shape of birds are represented by ten specimens, all of which are in the form of pendants and were found with burials. Eight were taken out in the course of our work, while the other two, as previously mentioned, were found by Mr Bell. Of the ten examples six portray the body of a bird as it appears with wings folded; the other four represent the wings extended, and in each specimen the other main physical features are likewise indicated.

Figure 9 shows one of a series of six bird-shaped pendants of shell, similar in general form, found near the neck of Skeleton 36. They vary somewhat in shape and size. These shell effigies represent the owl; two of them show the eyes and the beak. There is no evidence of decoration on the body portions. The hole for the suspension of the pendants passes through the neck, and it is evident that the objects had been worn a long time, as the ends of the beads with which they were strung have abraded the sides of all of them. With these six bird pendants were 237 shell beads, and two shell pendants in the form of fish.

The bird shown in figure 10, which is rather massive and has extended wings, was found in association with small shell and glass

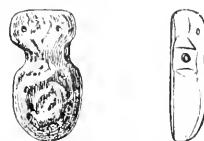


FIG. 9.—Shell owl figure found with Skeleton 36.

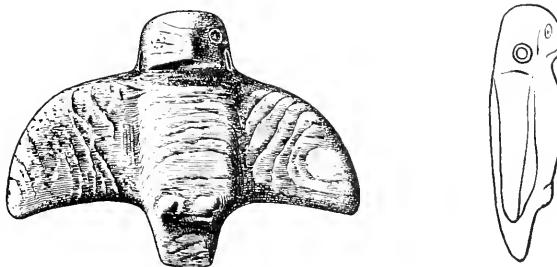


FIG. 10.—Shell bird pendant found with Skeleton 18.

beads near the neck of Skeleton 18. The breast is carved in relief, as are also the legs and the beak. The wings taper from the body to the tips, and on each side of and at the junction of the wing

and the body they are decorated with parallel lines and dots. Decomposition of the surface has obliterated the greater part of the original ornamentation, the design mentioned being the only decoration that remains. A broad, lateral groove accentuates the neck, and the perforation for the cord passes directly beneath it. The eyes are represented by small circles, each with a central dot.

The size and general form of another bird pendant are shown in figure 11; it was found with Skeleton 30 and probably had been

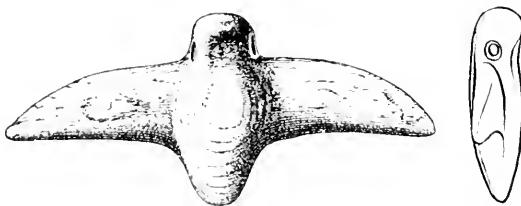


FIG. 11.—Shell Bird pendant found with Skeleton 30.

attached to the necklace of shell discs and beads lying nearby. This bird is more delicately carved than the one just described. It has an oval body and scimitar-shaped wings which taper from the body outward. The raised portion forming the beak and the slight indication of the eyes are the only decorative features that remain, the surface being soft and chalky from decomposition.

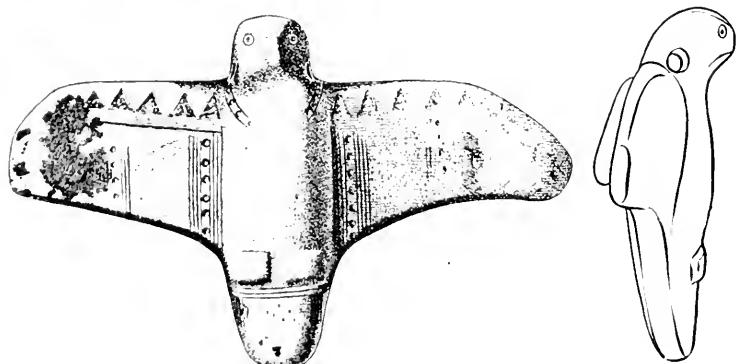
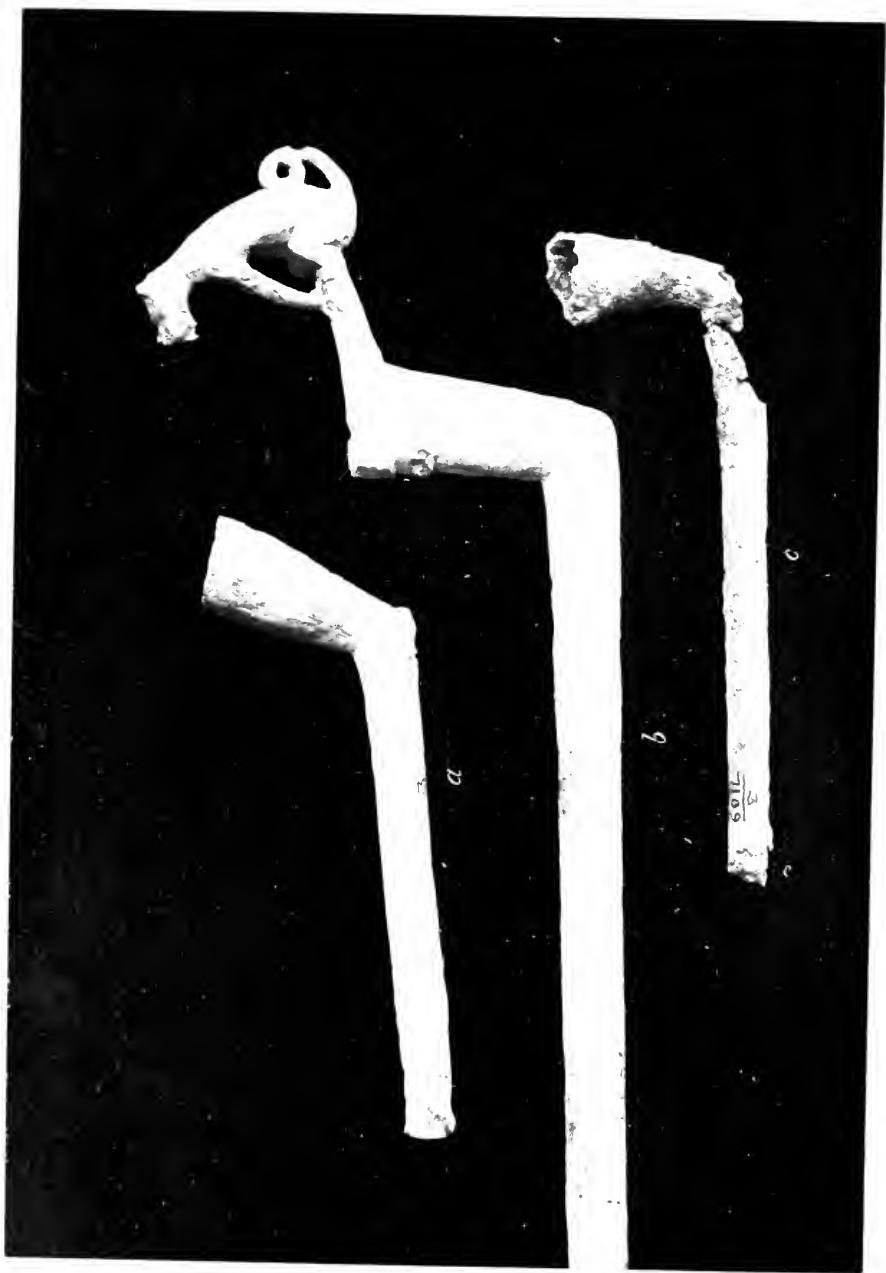


FIG. 12.—Shell Bird pendant found by Mr. Bell.

One of the bird figures found with the skeleton of a child by Mr. Bell (pl. ix, b, and fig. 12) presents a surface the major portion of

PEWTER PIPES FOUND WITH THE BODIES

a. Skeleton 31. b. Skeleton 37. c. Skeleton 24



which is perfectly preserved. The figure represents a hawk or an owl. The tips of the wings and the end of the tail are discolored, and their superficial polish is gone; the tip of the beak is abraded, and a small piece has been broken from the left wing; otherwise the figure is perfect. The shell from which this bird was cut was slightly curved, the concave portion being the side that rested against the body of the wearer. The body of the figure is a rounded oval; the legs are represented by two knobs; the head is carved in the round, and the eyes are formed by circles enclosing dots. The hole for suspension passes through the neck. At the lower part of this aperture, on each side, is the end of a necklace-like band formed by parallel lines separated by a row of dots in contact. The claws of the left foot are faintly represented by a series of five dots, and there is a slight groove in a corresponding position on the right foot, but these indications are not shown in the drawing. Three deeply incised lines separate the tail from the body, and there are four incised parallel lines on each side of the tail. The upper edge of the wings is outlined by a series of triangular incisions, five on each wing, forming a serrate design. Paralleling the base of this ornamentation is a narrow line which serves as a starting point for a series of three incised bands that decorate each wing. The band nearest the body on each side is clear-cut and well preserved; it is formed by two groups of four parallel, vertical lines separated by a row of dots. This design is similar to that shown in figure 10 which illustrates a bird found with Skeleton 18.

The second bird (pl. IX, *a*, and fig. 13) suggests the figure of a kite or possibly a swallow. In the former specimen the breast of the bird was shown, whereas this one represents the back. It has broad, scimitar-like wings and a bifurcated tail. The surface is decomposed to such an extent that the physical features have almost disappeared, and only portions of the ornamentation remain. The back is formed by a raised oval area at the point where the tail and body join; the head is irregular in form, the top being rounded and projecting slightly above the level of the neck. The attitude of the figure shows that the bird is represented in flight. The hole for suspension passes through the central portion of the head.

Just above and slightly in front of the perforation openings are the eyes, represented by the usual circle surrounding a dot. The beak was below the eye-circles, but it is missing; the general contour, however, shows that it projected only slightly above the present surface. A decorative band begins below the openings of the perforation and extends across the rear of the neck; it is composed of two parallel lines separated by a row of dots, thus practically duplicating the design on the breast of the bird figure last described,

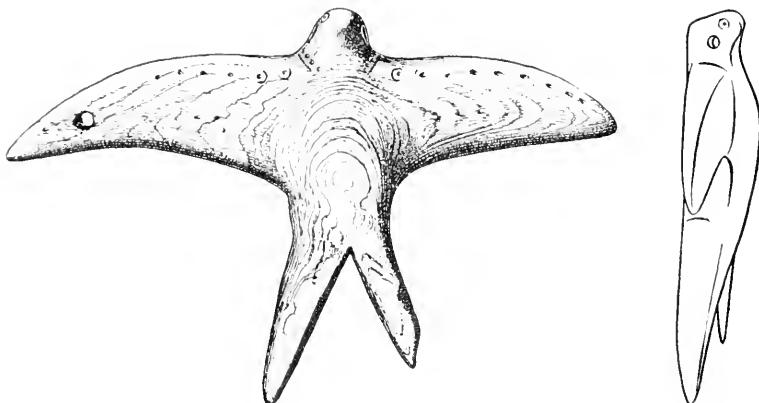


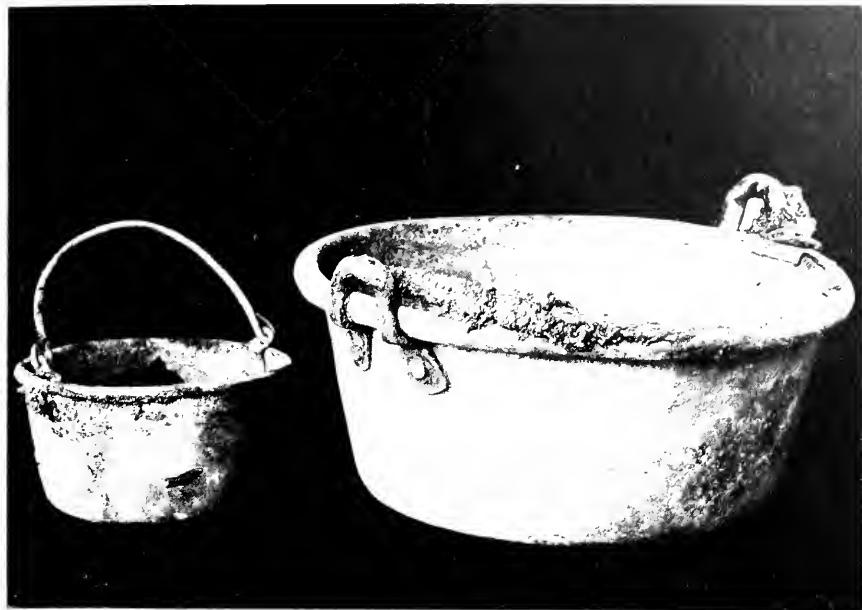
FIG. 13.—Shell bird pendant found by Mr Bell.

except that in the present specimen the dots are not in contact with the lines. Extending along the upper edge of the wings is a line of dots enclosed in small circles, and there are faint indications of another line near the central part of the wings. There is a drilled perforation near the tip of the left wing, as if to facilitate the attachment of a feather or some other symbolic object.

FISH FIGURES

Shell ornaments in the shape of fish are not uncommon in Algonquian and Iroquois burial sites. In some sections of the East they are usually crudely fashioned, but those found in the Minisink mound are uniformly well executed.

All the shell ornaments of this type from the mound were found with skeletons. There are six specimens, five representing a porpoise-like creature and the sixth a lamprey eel.



A. BRASS KETTLES FOUND WITH SKELETONS 39 AND 51



B. EUROPEAN CLAY PIPES FOUND WITH THE BODIES

The largest ornaments of this class were found with Skeleton 53; they were resting on the left scapula and had probably been the pendants of a necklace, as shell and glass beads were found near the neck of the skeleton. The best preserved specimen is shown in natural size in figure 14. The shovel-shaped nose, curved back, and the large dorsal fin give it somewhat the appearance of a porpoise or a dolphin. The tail and the dorsal, ventral, and anal fins are carved in relief. The eye is represented by a dot within a circle, and in addition to a well-defined decorative band there are traces of two other bands on the eroded portion of the shell. The figure has two holes for the passage of a suspending cord, one on each side of the dorsal fin, the lower openings being midway between the ventral and the anal fin.

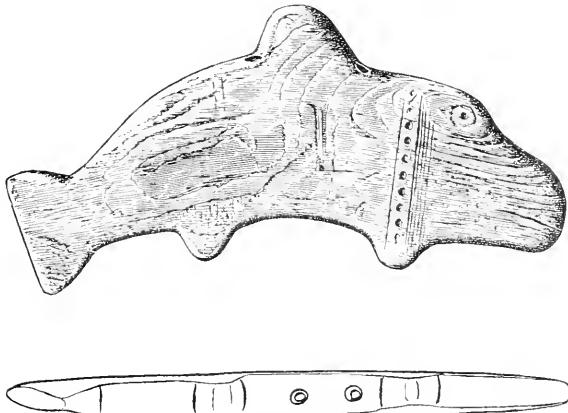


FIG. 14.—Shell pendant of fish form found with Skeleton 53.

The fish figure found with the one just described is practically a duplicate in size and form; but there are minor differences, such as the spacing of the fins and the drilling. The position of the suspension holes is the same, but on the lower surface the openings are nearer together than in the first specimen. None of the three decorative bands is well preserved, but the one near the central portion of the body, and the third, extending from the upper portion of the ventral fin to the back, are more clearly defined than the remaining one.

Another fish figure of shell (fig. 15) was found with Skeleton 10; it was lying on the neck, and with it were three triangular shell pendants and a number of glass beads. This specimen is much

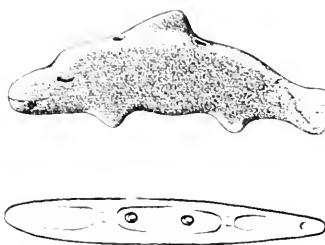


FIG. 15.—Shell pendant of fish form found with Skeleton 10.

smaller than those found with Skeleton 53, but is of the same general form; however, it is less curved, and there is a greater relative distance between the lower fins. The drilling is the same as in the other examples, the openings being on each side of the dorsal fin. The eye is represented by a deep crescentic incision, and the mouth line also is incised.

Two very small fish carvings were found with Skeleton 36, associated with other shell pendants in the form of birds, as well as with shell beads, and were on and just below the neck of the burial. In form they are similar to the large fish figures found with Skeleton 53, and the drilling is identical, but proportionately the head is larger and the tail more slender and tapering. The surfaces of the objects are disintegrated and no trace of ornamentation remains. On one of them the dot representing the eye is still in evidence.

An unusual fish pendant was found with Skeleton 26. Figure 16 gives a top and a side view of the specimen, which probably was designed to represent a lamprey eel. The outline sketch shows the hole for suspension, also a series of lines which may be the remains of decorative bands.

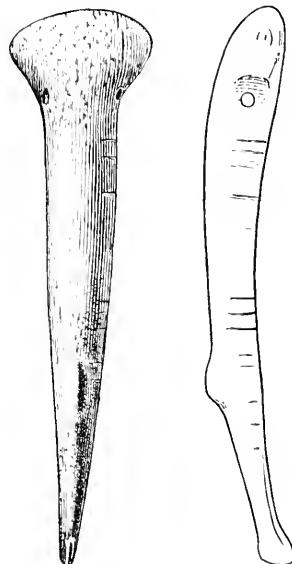
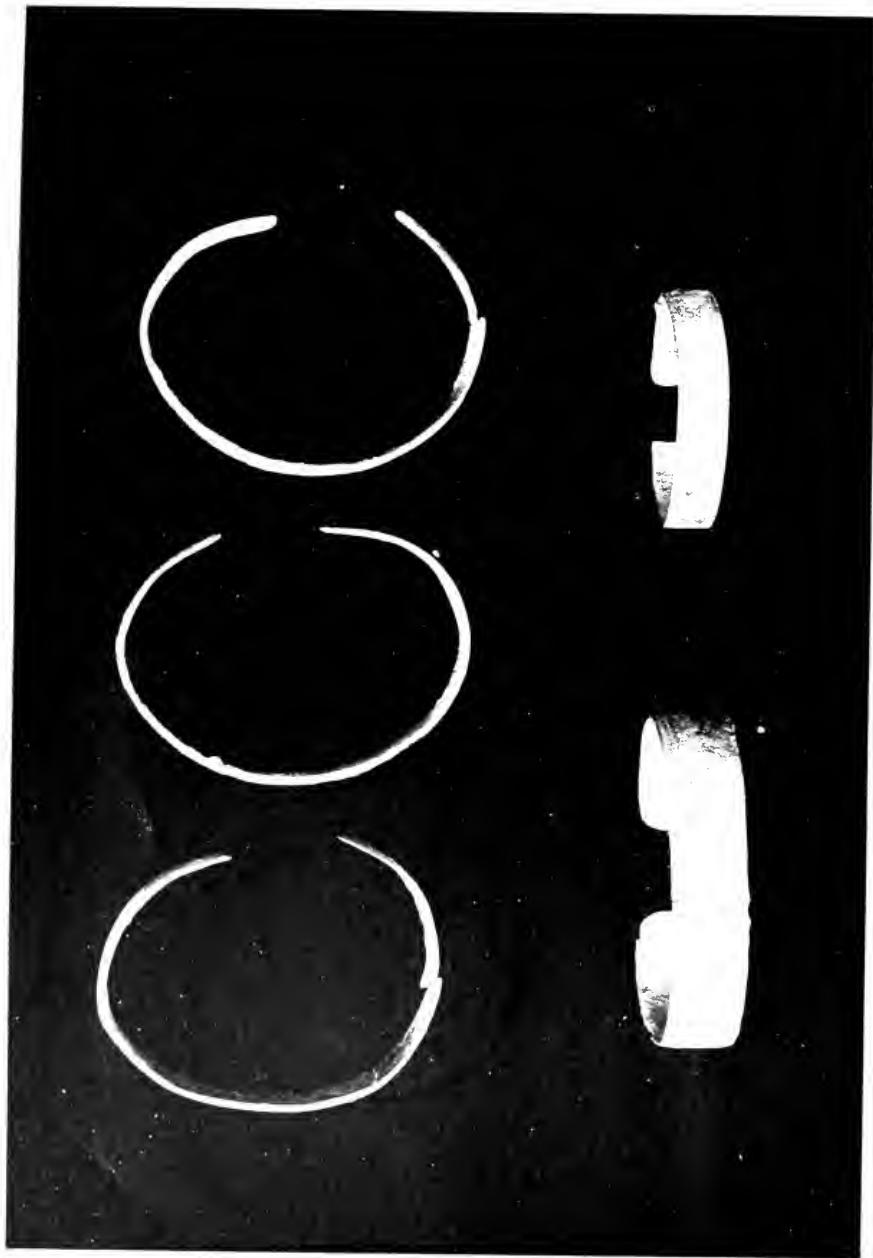


FIG. 16.—Shell figure of a lamprey eel found with Skeleton 26.

OTHER ANIMAL FORMS

A single animal figure in shell was found; it was with Skeleton 59 and represents a beaver. Figure 17 shows it in natural size, with

BRASS BRACELETS FOUND IN THE GRAVES



the missing portions indicated in outline. The body portion is very thin, but increases in thickness from the forelegs to the top of the head, as shown in the outline drawing. The under-body surface is flat, but the lower part of the head is rounded. The object is drilled for suspension, the hole passing through the neck. The upper part of the head is rounded and the eyes are represented by dots. The legs, tail, and distended sides of the body are cut in relief. Two parallel lines crossing the neck enclose three dots; this necklace-like decoration is similar to the bands that ornament the two bird figures found by Mr Bell.

BEADS

The shell beads found with the skeletons, all of aboriginal manufacture, are of five kinds, namely: typical wampum beads; long, cylindrical beads; those made of *olivella* shells; those spherical in form; and large disc-beads.

The disc-beads were found with Skeletons 7, 26, 29, and 30, and already have been described.

Wampum beads of the usual type were found with four of the skeletons. About the neck of Skeleton 30 were nine beads of this kind; resting on the chest of Skeleton 36 were 237, and on the cranium of Skeleton 37 there were 45. There were 130 with Skeleton 61, and, as mentioned in connection with the description of that skeleton (page 29), were lying in rows under the left shoulder, as if they had formed a belt-like object.

Cylindrical or tubular shell beads were found in six of the graves. These are of the form so readily cut from the columella of a univalve, and range in length from 1 to $4\frac{1}{2}$ in. None of them is ornamented, and in most cases the surface has disintegrated. With Skeleton 8 were five beads of this variety, associated with small glass beads in such manner as probably to have formed a necklace

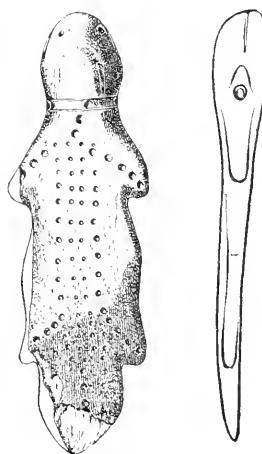


FIG. 17.—Shell pendant representing a beaver, found with Skeleton 59.

(pl. v). Under the jaw of Skeleton 17 there were nine more of this type, found in connection with a spherical shell bead and a number of glass beads. About the neck of Skeleton 18 were nine cylindrical beads and a number of glass ones. Forming part of a deposit of ornaments near the right hand of Skeleton 29 was a single bead of this type, and under the right cheek-bone of Skeleton 30 there was another, shown in plate vii, *a*. Skeleton 50 was accompanied with seven of these beads, lying near the neck.

A single spherical shell bead was found; it was lying with the tubular beads under the jaw of Skeleton 17.

With Skeleton 6 were two small beads made from olivella shells, but they are greatly disintegrated. Although this type of beads is abundant in many eastern sites, these were the only ones found in connection with the burials at Minisink.

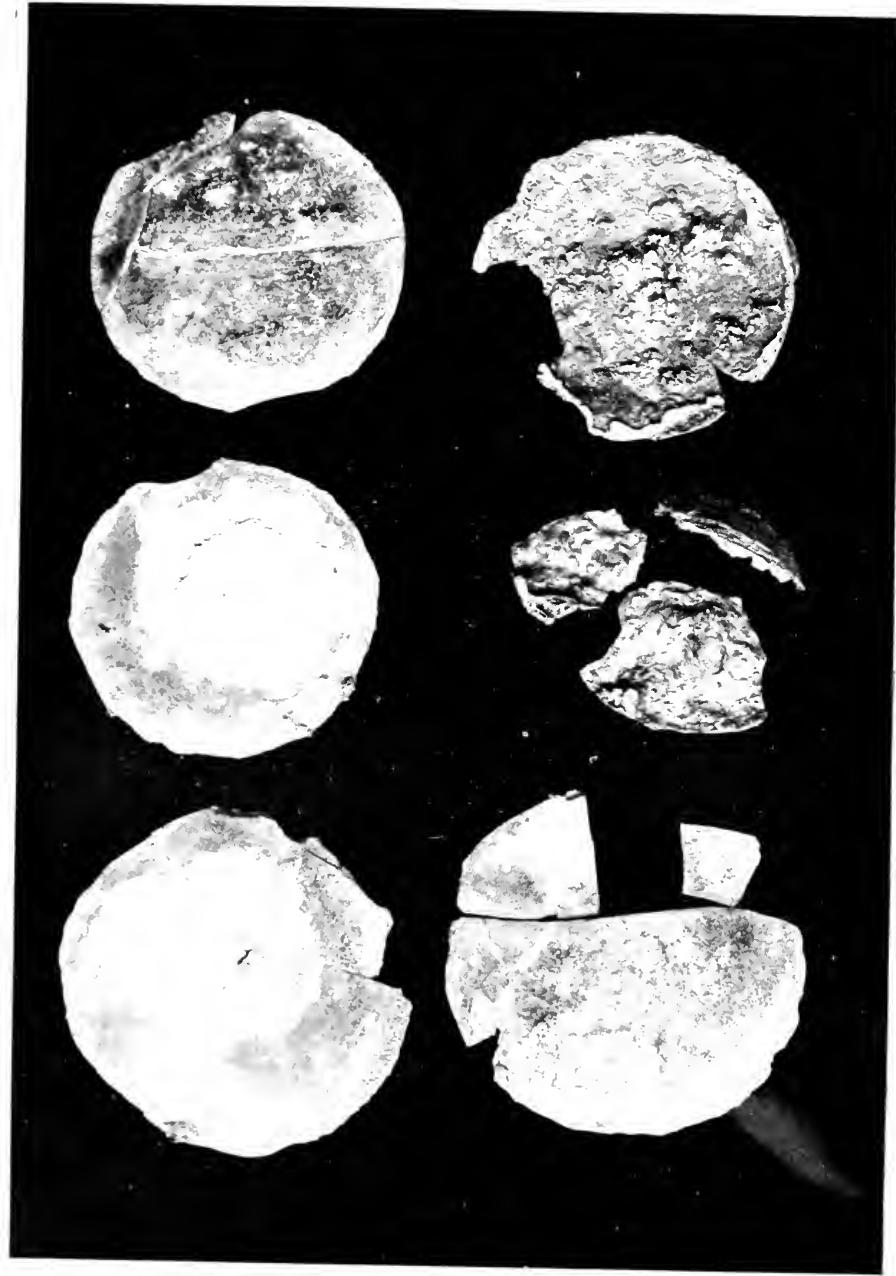
Further reference to shells and shell ornaments not in association with burials is given on page 73.

STONE IMPLEMENTS AND ORNAMENTS

Although many stone implements and a few stone ornaments were found in the feast-pits associated with the burials and elsewhere in the cemetery, few objects of stone were buried with the bodies.

No large implements were found, and the only small ones consist of ten pieces of flint, associated with Skeletons 24 and 67. Of these, three were accompanied with steel and were probably used for striking fire. Under the chin of Skeleton 6 were two small chipped pieces of black flint, and five small pieces were associated with other material near the bones of Skeleton 39. Three flat pieces of limestone were found—one, near the skull of Skeleton 6, is a fragment with disintegrated surface, the edges of which may have been worked. A similar piece rested on the chest of Skeleton 14, and another was found under the lower jaw of Skeleton 16. From the position of these stones it is evident that they had not been deposited fortuitously.

With Skeleton 33 were twenty-six small pebbles, associated with glass beads found in and about fragments of a rattle made from the



shell of a box-turtle. The stones had probably been used with the rattle, and the beads as ornaments.

Another evidence of the ceremonial use of stones in connection with the burials was the finding of a rock-crystal in the mouth of Skeleton 20. Owing to their attractive appearance, both in their translucency and in the beauty of their facets, and no doubt also to the mystery associated with their formation, crystals have been and still are used by many primitive peoples for ceremonial purposes, and the Munsee of Minisink were no exception, although the skeleton under consideration is that of a white man.

Practically all the beads of aboriginal manufacture deposited with the dead are of shell; a few are made of metal, but only seven stone beads were found: these are of catlinite, or red pipestone, and were found with Skeletons 29 and 53. With the former there were six, five of which were with a deposit in or near the right hand; three of them are bar-shaped, while the others are irregular in form. The sixth bead, found with a deposit of objects near the pelvis, is also of the bar type, but the edges, instead of being plain as are those of the other beads found with the skeleton, are serrated. Catlinite was used in the Middle West in prehistoric times, and through intertribal barter found its way into regions far from the aboriginal quarries in Pipestone county, Minnesota. On this subject Dr William M. Beauchamp¹ says:

A little before A.D. 1700, catlinite, or red pipestone, was brought East in small quantities, and soon became quite abundant. It assumed many forms, and was commonly delicately perforated for suspension, often having a double parallel perforation for the purpose of keeping it exactly in place.

The beads above mentioned are the only objects of catlinite found during our investigations, but among the surface finds from the immediate neighborhood there is a pipe of this material.

For reference to objects of stone not associated with burials, see pages 70-73.

¹ *Polished Stone Articles Used by the New York Aborigines*, Albany, 1897, pp. 26-27.

OBJECTS OF BONE, ANTLER, AND TURTLESHELL

Articles made of materials under this caption found with the skeletons were limited to a bone awl, a bone bodkin, an antler flaking-tool, a fragment of a tortleshell rattle, part of a tortleshell drinking-cup, two bear-teeth, and six bone tubes.

The awl, of turkey-bone (pl. x, b, f), was found with Skeleton 44. The end has been pointed, but the remainder is unworked. The flaking-tool, found with the same skeleton, is fashioned from a

fragment of animal bone, probably deer, and one surface of the pointed end has been abraded. As the extreme point is missing, it is impossible to say definitely whether this implement was used as a flaker or a bodkin, but the worked surface would suggest the former.

The fragments of the tortleshell rattle shown in plate xi and figure 18 was found with Skeleton 33. The carapace of the turtle is an effectual and convenient rattle-box, and together with the native gourd was no doubt among the first forms of hand rattles. The lower part of

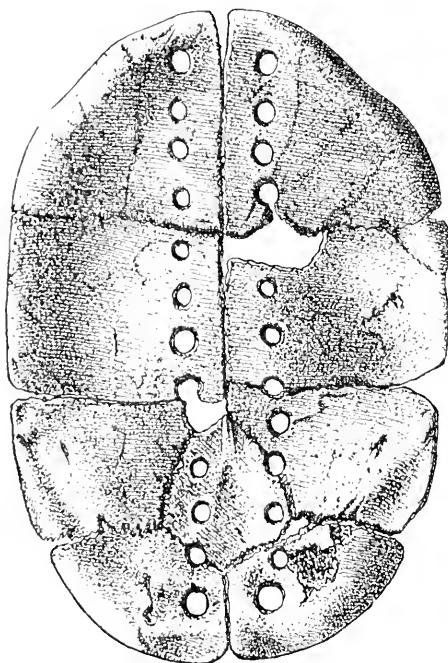


FIG. 18.—Fragment of tortleshell rattle found with Skeleton 33.

the shell, or plastron, is almost perfect; it shows two parallel rows of holes drilled either for decoration or for the attachment of beads or other ornaments.

The fragment of the drinking-cup, above referred to, is probably a portion of the carapace of a land tortoise. Vessels of this nature



OBJECTS OF METAL FOUND IN THE MOUND

are found occasionally with burials in the eastern part of the United States, and a few unbroken ones are in museum collections. The specimen under consideration was found under Skeleton 8. The careful rounding and smoothing of the rim characterize the type of vessel of which this fragment was a part.

Canines of a bear were found with Skeletons 13 and 66. Such teeth were commonly used as ornaments, but neither of the two found with this burial is drilled for suspension or otherwise artificially worked.

The six bone tubes were found with a pewter pipe and a clay pipe, both of European make, in association with Skeleton 31. These tubes are slender bird-bones, averaging 5 in. in length. The distal and proximal portions of each have been removed and the ends carefully rounded. The surface of each specimen is smooth, but there is no evidence of ornamentation. From the size and shape of the bones it would be safe to assume that they had been used as sucking or drinking tubes. If the former, they possibly formed part of the paraphernalia of a medicine-man.

The only object of antler found with the burials is a flaking-tool which accompanied Skeleton 44. It is a short, compact, cylindrical piece of antler ($2\frac{3}{8}$ in. long, $\frac{1}{2}$ in. in diameter), and shows the effect of considerable use. It is of the type of implements used in connection with a hammer for removing the large flakes during the initial stage of chipping which followed the general roughing out of a prospective stone tool.

Reference to objects of bone and antler found dissociated from burials is given on pages 73–74.

ABORIGINAL PIPES

Only two pipes of native workmanship, both of earthenware, were found with the skeletons. This is the only noteworthy instance at Minisink in which alien objects greatly outnumbered the aboriginal artifacts. Both pipes were found with Skeleton 67, and neither is of unusual form.

As shown in plate XII, the upper specimen (*a*) exhibits a type of pipe that has been found in Iroquois sites. The major part of

the stem remains; the upper surface and the sides are flat, the under surface is rounded. The bowl is of the form of a human figure in a semi-reclining posture, the arms resting at the sides and the legs bent downward. In its present condition the pipe measures 4 in. in length.

The second pipe (pl. XII, b), 5 in. in length, is of the tubular variety. The stem is slender and is tubular in form. It is not decorated, but there is a line of impressed marks at the junction of the bowl and the stem. The bowl is devoid of the usual rim projection or ornament, and is without ornamentation save for a faint incised-line design on the outer surface just below the rim. The pipe is perfect with the exception that a small portion of the mouthpiece is missing.

For pipes found not in association with burials, see pages 74-75.

POTTERY VESSELS

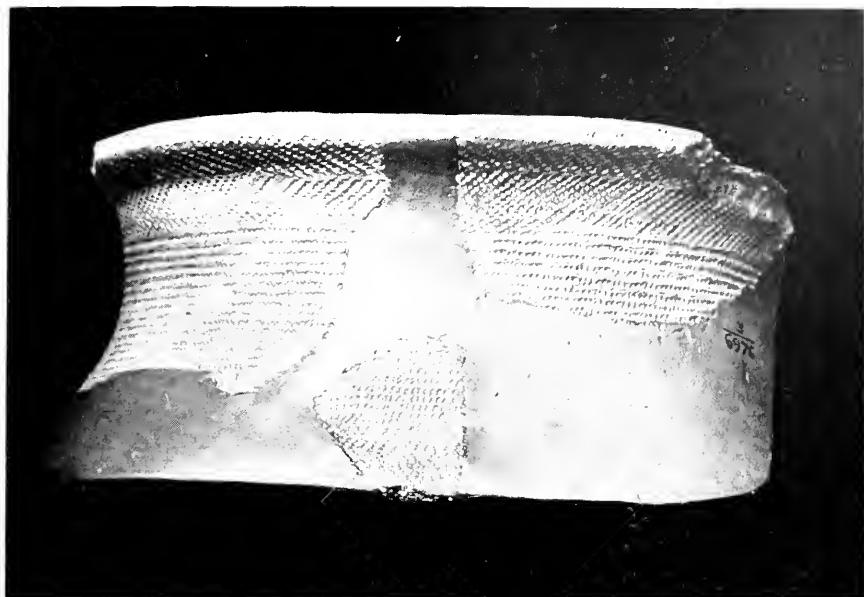
Although makers of pottery, from the evidence offered by their burial place it would seem that the Munsee of Minisink did not use their earthenware as burial accompaniments. Of the sixty-eight skeletons exhumed, only one had pottery in association, and this was merely a fragment. The exception noted was Skeleton 60, which had on the cranium a portion of a bowl with a boat-shaped end. The exterior is paddle-marked, but there is no other evidence of decoration. Though but a fragment, it is the only evidence of a bowl-shaped vessel found in the mound.

With Skeleton 11 two large fragments of a jar were found, but as this skeleton had been disturbed it is probable that these sherds, like a large rim fragment found with Skeleton 8, had formed part of the refuse from a feast that had been cast into the grave.

A description of the technique of the earthenware of the Minisink site is given on pages 60-67, in connection with the discussion of the objects not associated with burials.

PIGMENTS

The only evidence of pigments found with burials was in association with Skeletons 8, 30, and 33. With the first of these, small



a



b

FRAGMENTARY ALGONQUIAN JARS

pieces of red ochre were mixed with the sand that surrounded the skull, the upper part of which was discolored by it. The crania of Skeletons 30 and 33 were each resting in a mass of red ochre, and small pieces of this material were mingled with the beads that encircled the neck of Skeleton 30.

Some of the crania and other bones were discolored by copper salts, but there was no indication of the use of paint as a means of decoration.

OBJECTS OF EUROPEAN ORIGIN

Although the first settlement of the Minisink region by white people was made during the last decade of the seventeenth century, the Munsee, living so near the coast, had been in touch with civilization from the earliest colonial times, hence it was not surprising to find various articles of foreign manufacture in the graves. Glass beads were among the first trinkets to be traded with the Indians, and many of these found their way to Minisink. In addition, there were found with the burials the following: brass kettles, bracelets, bells, a spoon, and beads; wire ornaments probably also of brass; a spoon of German silver; a copper chain; mirrors; fire-steels; pewter and clay pipes, and textile fabrics.

TRADE BEADS

The trade beads found with the bodies are all of glass, most of them black, white, or red, and such as were generally used in decorating wearing apparel as well as for necklaces. A few of these beads are spherical, and one, found with Skeleton 30, is cylindrical in form and blue-black in color. This last was found with wampum beads, and in size and shape is similar to those of native make.

Glass beads, unless of unusual type, have little value except from a historical point of view. With twelve of the sixty-eight burials glass beads were found: these were associated with Skeletons 6, 7, 8, 10, 17, 18, 29, 30, 33, 36, 51, and 53. The only beads of this kind worthy of special note were with Skeleton 17: these number eighteen and are of the form of kernels of corn. The skele-

ton with which they were found was that of a child, and these beads, with others of glass and shell, were about the neck. In making these beads both the shape and the color of the corn were imitated. Glass beads of similar character are found occasionally in association with burials in the eastern part of the United States. In the Museum of the American Indian is a series found with a burial in an Iroquois site in western New York.

PEWTER PIPES

Buried with Skeletons 24, 31, and 57 were three pipes made of pewter. These were probably of European manufacture, yet it is possible that they were fashioned by the Indians. Beauchamp,¹ in writing of metallic pipes, says:

Roger Williams' statement has been given regarding the quickness with which the New England Indians learned to cast metals, even in the form of pipes. Though Hudson said he saw copper pipes in New York in 1609, none of these are known, nor are metallic pipes common. Those found on Indian sites were probably made by white men. Pewter and lead were easily melted, not so iron and brass. So bars of lead were often given to the Indians at treaties and are sometimes found on their village sites.

Comparatively little is known concerning early pewter and lead pipes among the Indians, but a sufficient number have been found to show that they were not uncommon. Beauchamp describes seven that had come under his observation to the year 1902, since which time many others undoubtedly have been found. Most of the known examples of pewter pipes are simple in form. Of the three found with the burials at Minisink, two are plain, but the third is unusually ornate.

The first pewter pipe unearthed was with Skeleton 24. As previously mentioned (page 24), it was found, with other objects, near the left shoulder, and had been broken at the point where the bowl and the stem meet. In general form this pipe (pl. XIII, c) is similar to certain early trade pipes made of clay. The bowl is irregular in form and is greatly corroded. The stem is slender and

¹ *Metallic Implements of the New York Indians*, Albany, 1902, p. 56.



slightly tapering, and there is no evidence of a heel at the outer base of the bowl. On the upper part of the bowl there are traces of an incised decoration, but its character cannot be determined. The length of the pipe is $4\frac{3}{4}$ in.

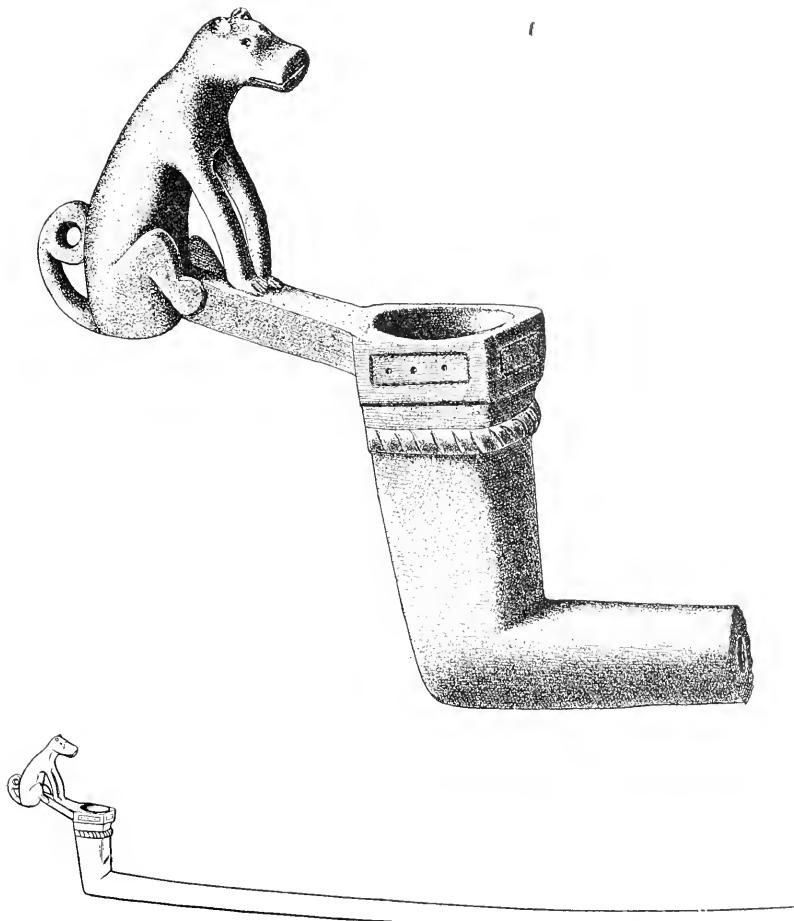


FIG. 19.—Pewter pipe found with Skeleton 57.

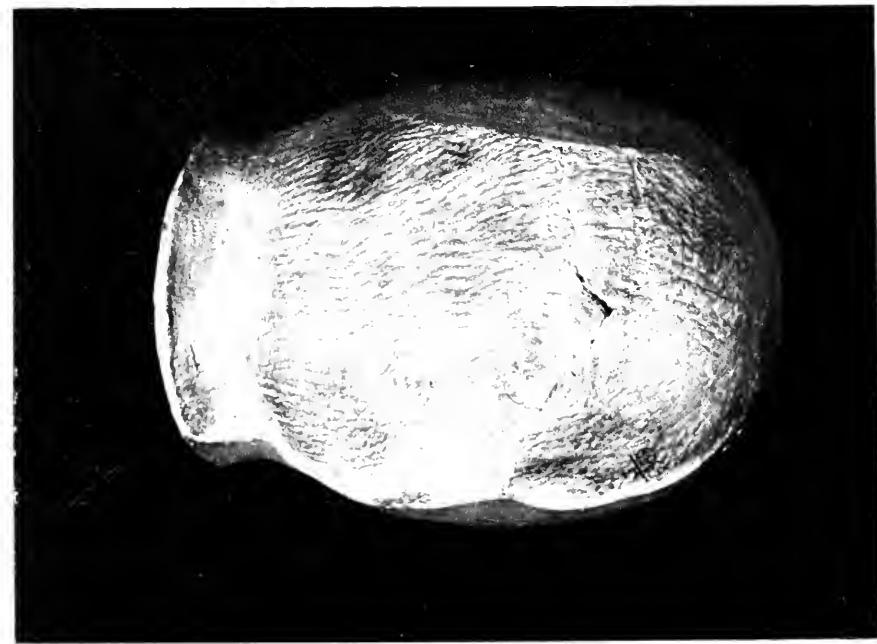
With Skeleton 31 a pipe of similar form was found (pl. XIII, *a*). It had been broken, and in the illustration (pl. VI) the stem only is shown. Like the pipe last described, its stem is slightly tapering,

but is thicker and exhibits less grace in treatment. The mouth of the bowl is oval, and the sides are rounded except the surface facing the smoker, which is flattened. At the base of the bowl there is a well-defined heel, but there is no property mark and no trace of decoration. The length is 4³ in.

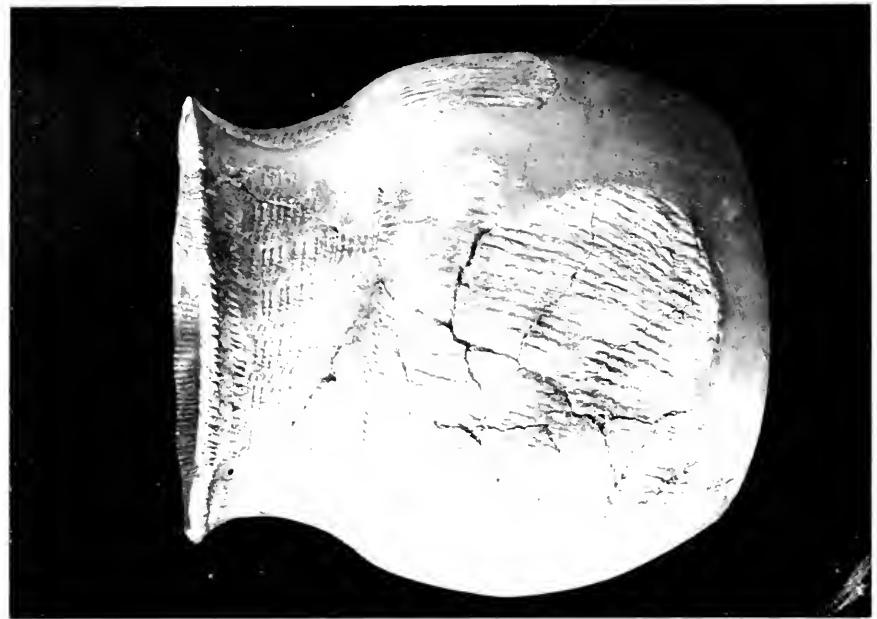
The most elaborate of the three pewter pipes was found with Skeleton 57 (pl. XIII, b). It has a long, slender, tapering, undecorated stem, and a highly ornamental bowl. The extreme length of the pipe is 18 in. (fig. 19). The stem was broken when the pipe was found, but, unlike the other two, the break occurred near the mouth end. The bowl joins the stem almost at a right angle; there is, however, a slight distal inclination. The sides and that portion of the bowl facing the smoker are slightly bulging; the rear surface is flat. The lower part of the bowl is not decorated, and there is no heel. Encircling the mouth of the bowl on three sides is a frieze, the lower edge of which is squared. On each face of this frieze there is an incised quadrangle containing three impressed dots. Below the frieze there is a rounded fillet with equidistant oblique incisions that give it the appearance of a heavy cord. Projecting from the posterior of the bowl of the pipe, at the surface of the rim, is a platform-like projection which forms a support for an animal figure, a wolf¹ or a dog, molded in the round. It is represented in a sitting posture, the hind feet resting against the sides of the support, and the front feet on its upper surface. The back of the figurine is rounded; the tail is curled against the lower part of the back; and the eyes, ears, and mouth are well represented. Neither the animal nor its support shows evidence of having been ornamented. There is no indication of a property or a manufacturer's mark, but from the elaborateness of the pipe it was probably made by a white man, although the style of decoration and the technique of the animal are so characteristically aboriginal that it is possible that Indian suggestion, at least, is responsible for this unusually ornate object from the Minisink site.

No other pipe of this form has been seen by the writers, but a

¹ It may here be mentioned that the Munsee were known also as the "Wolf tribe of the Delawares," a fact that suggests the employment of the wolf totem as a symbolic device.



4



b

less elaborate though allied example is described and figured by Beauchamp in the publication (p. 57) previously quoted. He says: "Fig. 127 is a curious angular lead pipe in the State Museum, with a bold platform projection in front of the top of the bowl. This was obtained by Mr J. S. Twining in Jefferson County." The accompanying illustration shows an unembellished platform projecting from the bowl, the point of juncture being below the frieze, which in this specimen is composed of encircling lines. The type is such an unusual one that it is interesting to note the main point of similarity. Whether there is evidence of the former existence of a figure at the end of the platform, the writer does not state.

In summing up the evidence presented by these pewter pipes it would seem that the two simple forms may probably be the product of Indian handicraft, while the third example was more likely the work of a white man.

Although the surfaces of all the pewter pipes are somewhat corroded, the alloy is well preserved and is not easily broken, a fact that precludes the probability of breakage after burial. It would therefore seem that the "killing" of objects deposited with the dead, a custom often practised by aboriginal tribes, had likewise been employed in this instance, and that the "spirit" of the pipe was thus liberated to accompany its owner to the future world.

In answer to an inquiry concerning pewter pipes, Mr Arthur C. Parker, State Archeologist of New York, writes as follows:

We have at least six pewter or lead pipes similar to the one you mention and several were destroyed in the Capitol fire some years ago. All of these pipes seem to have been cast by Europeans and not a few are modelled after the conventional clay pipe, although the stem is thicker. One or two pipes that were destroyed by the fire had upon the projected lip piece the effigy of some animal, I do not remember whether bear or wolf. This platform with effigy seemed to have been cast with the pipe. In the case of the pipe which you refer to in your letter, there seems to have been some animal effigy. This specimen was destroyed in the fire. The illustration in Beauchamp is correct, if I remember rightly. All of the pewter pipes in our collection are from Iroquoian sites of the middle and late colonial periods, that is to say from 1650 to 1687 and

1687 to perhaps 1755. In later sites brass pipes have been found to the exclusion of the pewter pipes.

In the *Fourth Annual Report of the Canadian Institute*¹ a pipe is figured and thus described:

The production of a pewter pipe like the above leaves no doubt as to European influence. The animal is probably meant to represent a bear. This pipe was found near the village of Scotland in Brant county. The only other pewter pipe in our collection came from the Bay of Quinte, where it was found some feet deep in the water.

This pipe is practically identical with that found with Skeleton 57. From the drawing it would seem that it has the same proportions and the same general shape. It is about one foot long, has the same slender type of stem, the bowl is placed at the same angle, a frieze encircles the edge of the bowl, and a projection rises from its upper distal surface. Instead of a dog or a wolf, as represented on the platform of the Minisink specimen, the Canadian pipe has the figure of what seems to be a bear—in a standing position with the head toward the bowl-opening.

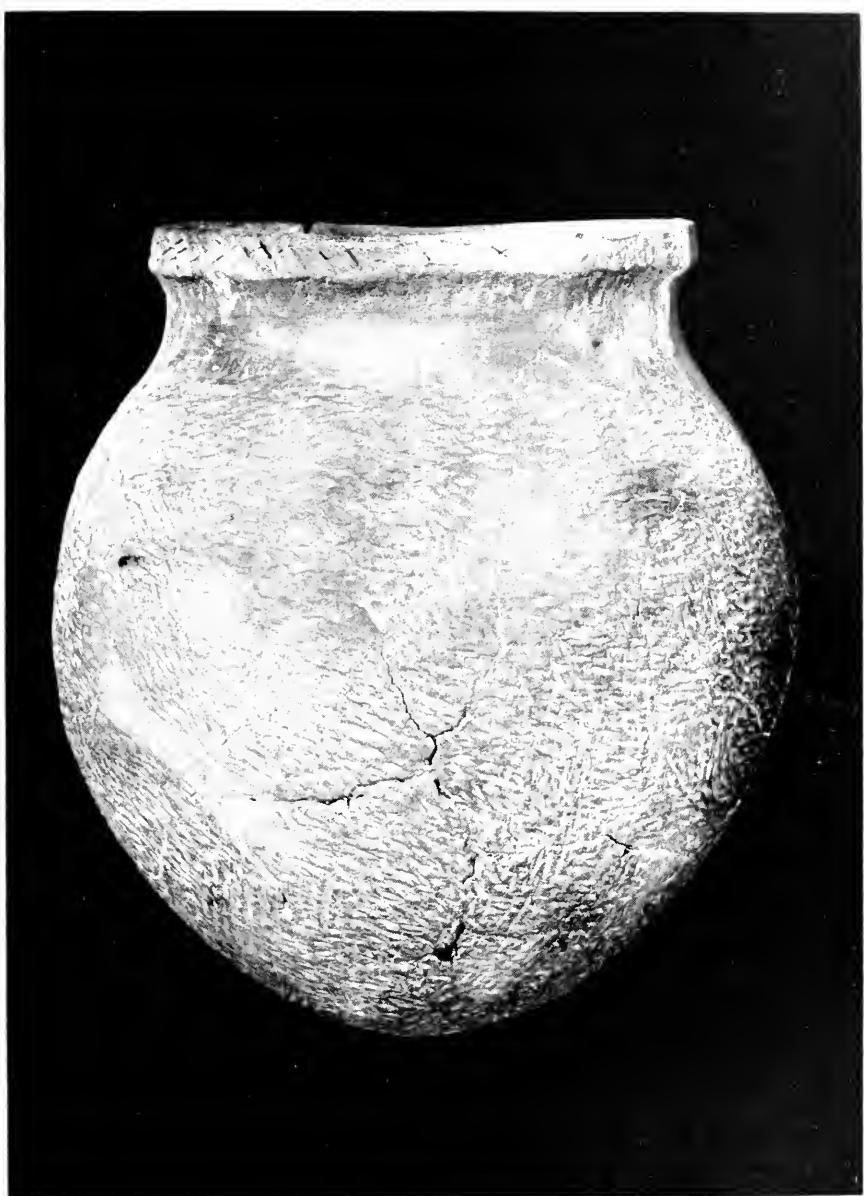
OTHER METAL OBJECTS

Metal objects of European origin were found with thirteen of the burials, namely, Nos. 7, 8, 24, 29, 31, 39, 51, 53, 57, 58, 59, 66, and 67.

Spun-brass kettles were buried with Skeletons 39 and 51. The one found with the former skeleton was resting on the skull; it is 8 in. in diameter at the rim, and $3\frac{1}{2}$ in. deep. This kettle is perfect, with the exception of the iron bale, which had fallen apart through corrosion. The kettle found with Skeleton 51 was near the left side; it is 4 in. in diameter at the rim and $2\frac{1}{4}$ in. deep. The bottom is broken and some pieces are missing, but the bale and attachments are intact. Its rim contains a core of iron. These specimens are shown in plate XIV, A.

Four brass bracelets, besides fragments of others, found with Skeleton 53, are probably of European manufacture. The decora-

¹ Toronto, 1891, p. 67, fig. 161.



ALGONQUIAN JAR

tion is in the form of bands of oblique lines, as shown in plate xv and figure 20. The small bracelet shown in the same plate was found in a grave by Mr. Bell.

Small glass mirrors in metal frames were found with Skeletons 24 and 39. Typical examples of these are shown in plate xvi.

Two small brass bells, half an inch in diameter, were with Skeleton 29, and with the same burial was a spoon of German silver or white metal (pl. xvii). With Skeleton 58 were pieces of fused metal; with Skeleton 59 a chain of copper (pl. xvii), and with Skeleton 66, pieces of folded sheet-metal. Accompanying Skeleton 8 was a rather elaborate wire ornament, probably of brass, only portions of which remained; it is shown, together with other objects, in plate v, and the individual wire coils are illustrated in plate xvii. Pieces



FIG. 20.—Bracelet found with Skeleton 53.

of metal found in connection with small flints were with Skeletons 24 and 67, but were corroded to such an extent that their original form could not be determined; they evidently were used, however, for striking fire. Small copper beads, no larger than the usual wampum beads, were buried with Skeletons 7 and 53. It is possible that they are of native make, but it is more likely that, together with the glass beads used with them, they were obtained by the Indians from early settlers.

The finding of the bowl of a brass spoon, not associated with a burial, is referred to in another place (page 75).

CLAY PIPES

It would be natural for one to assume that the finding of European pipes bearing the makers' marks would facilitate the explorer in his endeavor to determine the age of the burials with which they were found, but after affording proof that the burials are post-Columbian, their value in determining chronology practically ceases, for there is little definite knowledge concerning pipe-makers or the time of the introduction of the product of their manufacture.

Beauchamp,¹ in prefacing his remarks concerning clay trade-pipes, says:

Precisely when European pipes began to be used by the New York Indians, we may not be able to decide. Large white stems, carved as ornaments, appear on the Onondaga site of 1654, but this was occupied for some years longer. No Dutch pipes have been found, known as such, and it is not likely that English pipes would have been introduced inland, till the English took and retained possession of the province of New York. On some sites of the last quarter of the 17th century, such pipes have been found. As public gifts to the Indians they first appear in a council held in 1692, but some may have been given before. The older ones have the bowl rather small and barrel-shaped, and the makers' initials may appear on the projecting heel below the bowl.

Six European clay pipes (pl. XIV, b) were found with the burials, of which two were with Skeleton 6. One of these (*e*), in perfect condition, has a long, tapering stem and the usual inclining bowl. On the inner edge of the rim, above the stem, there is an impressed line. Impressed in the proximal face of the bowl are the letters R T. The second pipe (*a*) is practically a duplicate of the first; it is provided with a band below the rim and with the same letters on the face of the bowl, but part of the stem is missing. Both pipes afford indication of having been smoked.

The third pipe (*b*) was found with Skeleton 31. The bowl is almost perfect, but the stem is broken. The heel at the base of the bowl is stamped with a circle containing the letters E B, and an impressed line encircles the bowl just below the rim. This pipe shows no sign of having been used.

Another clay pipe (*d*) was found near the left shoulder of Skeleton 24. The stem had been broken while in use, and there are indentations made by the teeth of the user. It has no heel, and there is no maker's mark. There is an impressed line on the proximal edge of the rim, and the inner part of the bowl is blackened from continued use.

Two pipes (*c*, *f*) were found near the right shoulder of Skeleton 39; both have broken stems, but the bowls are perfect. Each

¹ "Earthenware of the New York Aborigines," *Bulletin of the New York State Museum*, Albany, 1898, p. 115.



d



FRAGMENTS OF JARS OF IROQUOIS TYPE

has an impressed encircling line below the rim, and a heel at the base of the bowl. On the heel of one (*c*) are the letters ^PR and on the heel of the other (*f*) the letters E B. Both have been used.

In considering the makers' marks, we find two pipes marked R T. McGuire,¹ in speaking of this maker's stamp, says: "Dr E. A. Barber refers to a trade pipe with the initials R. T. on its heel, which was found in an Indian grave in Chester County, Pennsylvania, probably the manufacture of one Richard Taylor, of Bath, England; and another was found in Lancaster County, Pennsylvania." The pipes under consideration have the R T on the bowl and were probably Tippet pipes. Edwin A. Barber,² in a catalogue of pipes, describes three examples marked on the bowl in a similar way. The first of these he describes as: "Old British (?) Pipe; mark R T, impressed in back of bowl, and R. Tipp-et raised in circle on right side. From Indian Grave, Chester Co., Pa." and "Old British (?) Pipe; same form as No. 2 (the one just described) mark R T in back of bowl. From Montgomery Co., N. Y." In this instance R Tipp-et on the side was evidently omitted, for in Barber's description of the third pipe he mentions both marks.

No unbroken clay trade-pipes were found except in connection with the burials. Five fragments of stems, however, which had no association with skeletons, were unearthed; these may possibly have served as beads.

TEXTILES

Although the bone and shell objects were in a fair state of preservation, no objects of wood were found, and only three examples of textile fabrics, which were found with Skeletons 39 and 53. With the former were several objects of European manufacture, including a brass kettle, clay pipes, mirrors, and brass bracelets. The bale of the kettle was of iron, which had been broken into a number of pieces through corrosion; the core of the rim is also of iron. To one of the bale fragments a piece of cloth was attached,

¹ *Pipes and Smoking Customs of the American Aborigines*, Washington, 1899, p. 449.

² Catalogue of the Collection of Tobacco Pipes Deposited by Edwin A. Barber, *The Pennsylvania Museum and School of Industrial Art*, Philadelphia, 1882.

the oxidization of the iron having preserved it. This fabric is closely woven and has the appearance of colonial homespun, which it probably is.

Skeleton 53 was that of an adult, with which four brass bracelets and fragments of others were found. Attached to two of the fragments were small pieces of cloth of two different weaves. Owing to the fineness of the warp and woof strands there is little doubt that these fabrics were derived from Europeans.

URN BURIALS

The somewhat unusual practice of covering the head of a human body with a vessel, a custom commonly known as "urn burial," was manifest in two graves in the Minisink cemetery.

Skeleton 39 lay on its back with the head resting on the occiput. The kettle, as shown in plate XIV, A, was found bottom upward, with the rim resting on the frontal bone of the skull (pl. VII, b). From its position it would seem that, with the decaying of the wrappings about the head, the kettle had gradually slipped to one side.

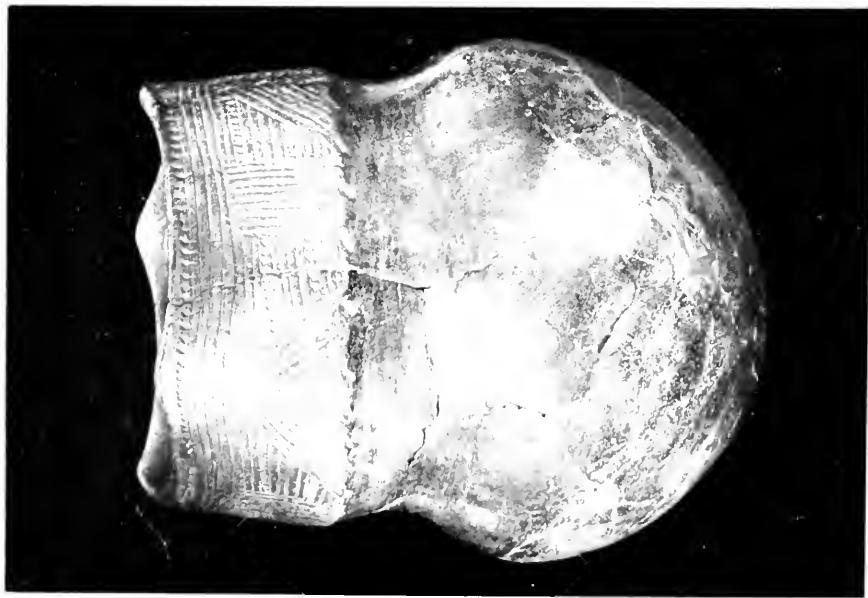
Skeleton 60 was lying in the same position as the one just described, and on its head rested a fragment of an earthenware bowl, 3 in. in depth. Strange to say, this was the only sherd of a bowl found with a burial.

In connection with the subject of "urn-burials" the reader is referred to the section treating of Pits Containing Jars (pages 67-70).

FEAST-PITS

In the descriptions of the burials mention is made of feast-pits and the remains of feasts as represented by animal bones (many of which had been broken, evidently for the purpose of extracting the marrow), bird bones, shells, etc. In many instances the disturbed area was merely an extension of the grave itself, showing that the refuse from the feast had been either deposited near the body or mingled with the earth with which the remains were covered.

In some instances were found so-called "pits" a short distance from the burial. In one case, for example, the edge of such a pit was three feet from the nearest edge of the grave of Skeleton 6.



(*a*) JAR AND (*b*) FRAGMENT OF A JAR OF IROQUOIS TYPE

a

b

This pit contained nine small, carefully worked net-sinkers, not grouped but scattered through the soil at an average depth of 18 in. The pit also contained animal bones, potsherds, and charcoal, and in all respects was similar to the feast-pits associated with the burials. Whether this pit had been used in connection with the ceremonies performed for the burial represented by Skeleton 6 cannot be stated. This is not an isolated case, as there were several similar pits, but their relation to nearby burials could not be determined.

Feast-pits and the remains of feasts deposited with burials are of common occurrence in connection with graves in this general region, suggesting the performance of a feast ceremony as part of the mortuary rites.

DOG BURIALS

The skeletons of two dogs were found in the cemetery. The first, unearthed at a point twelve feet southwest of Skeleton 6, was lying on its side, with the head toward the NE. A worked stone, a few potsherds, and a freshwater clam shell were found with it. About a foot west of this skeleton and in the same disturbed area were a number of large stones—one a lap-stone, another a grinding stone. This dog skeleton was not associated with a human burial, and all evidence pointed to the conclusion that it had been buried in pursuance of some ceremonial rite. Certain portions of the skeleton were missing, but from its general appearance it would seem that no part of the dog had been consumed in a feast.

The second dog skeleton was found between Skeletons 13 and 17, two feet below the surface. The bones were surrounded by pieces of charcoal and deer-bones, the latter having been cracked evidently for the purpose of extracting the marrow. Judging by the appearance of the dog bones, which were massed, and from the fact that many of them were missing, the dog had probably formed part of the food used in a feast. No implements were found with the burial. In the East, dog burials in connection with human interments are not uncommon, and they are not unknown in the West.

OBJECTS NOT ASSOCIATED WITH BURIALS

POTTERY

The preliminary investigations in connection with the Minisink burial site showed that many objects of aboriginal manufacture had been turned up by the plow, and, as before stated, fragments of human skeletons were found on the surface. It therefore is probable that some of the objects found in the general excavation of the mound had been deposited originally with the dead. A case in point is that of the finding, on the surface, of fragments of tubular shell beads associated with portions of a human skull—the beads had been broken into pieces and the bones had been bleached by the sun, but their finding showed that bodies with their accompanying ornaments and implements had been brought to the surface, and as the spot for years has been a favorite hunting ground for collectors, many specimens had been carried away.

Many of the artifacts found not in direct association with burials were in groups, some of which, however, were more or less near burials, others some distance from them. Those deposits found in connection with feast-pits are treated in detail under a separate heading (pages 67-70).

At the present time a satisfactory comparative study of the ceramic arts of the area under consideration is not possible, owing largely to dearth of material. That two well-defined types of pottery are represented at the Minisink site, however, cannot be questioned. A few specimens present characters common to both types and may be the result of association of two distinct aboriginal groups of people, but we are not able to determine whether the Iroquois type of pottery represents a post-conquest period, when the arts of the victors were forced upon the conquered, or whether they were Algonquian merely by ownership through the medium of trade.

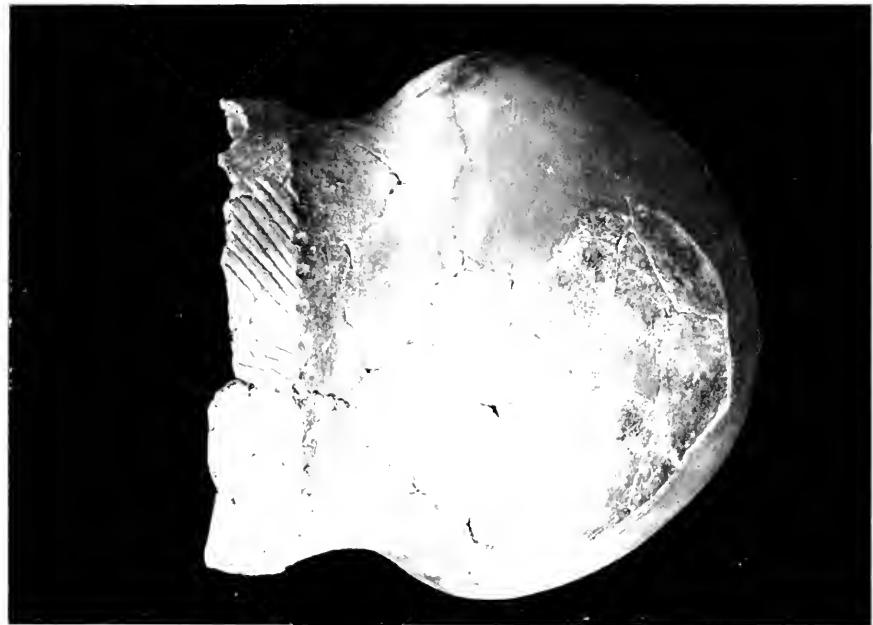
In considering the pottery of the Eastern Indians, Professor Holmes¹ says:

To exactly what extent the Algonquian tribes are responsible for the northern types of pottery, aside from those definitely assignable to the

¹ Aboriginal Pottery of the Eastern United States, *Twentieth Ann. Rep. Bur. Amer. Ethnol.*, p. 146.



a



b

Iroquois, may never be fully determined, but that these types are largely Algonquian may be assumed from the historic occupation of many sections by pottery-making communities of that family.

General historic and specific documentary evidence proves that the Delawares occupied the section of New Jersey under consideration for a long period, perhaps centuries. From the earliest times it was known as a Delaware stronghold, and it was held by them until the early part of the eighteenth century. The identity of the Algonquian forms is thereby assured, but with reference to the Iroquois ware only a personal opinion can be advanced. The main points of difference lie in the form and the ornamentation; the general technique presents peculiarities that are opposed to the technique of the Delawares. Cushing's comparison¹ is concise and pertinent:

The pottery of the northeastern Algonquian tribes at least is, if I may judge from examples I have seen in New England (and even from Virginia), relatively deeper, more conical, relatively narrower at the shoulders than at the rim, more decorated with cord-, net- or textile-impressed or stamped markings than with straight-lined incisions, and, above all, is more generally characterized by a shell tempering than is the inland pottery of the Iroquoian tribes.

The greater number of vessels found in the mound were in fragmentary condition. Only one perfect jar was unearthed, and this, with a similar one from the shore of Minisink island, near the mound, are the only complete examples of ceramic art obtained from this region. Owing to the fact that many of the vessels were practically complete, the missing portions have been restored, but wherever restoration has been made, the plaster has been given a neutral tint, no attempt being made to reproduce the original color of the vessel. This has enabled us to present a series of plates which afford a comprehensive idea of the various forms, embellishments, and decorative designs of the earthenware of the Minisink area.

Forty-one fragmentary vessels, representing three types of

¹ F. H. Cushing, *The Germ of Shoreland Pottery, Memoirs of the International Congress of Anthropology*, Chicago, 1894, p. 232.

pottery, have been restored. These types show the vessels of probable Algonquian origin, of Iroquois origin, and a few that seem to combine technique common to both types. In the accompanying plates six of the first type, seven of the second, and one of the third are shown. The remaining twenty-seven vessels, which are not illustrated herein, represent twelve of the Algonquian type, twelve of the Iroquois, and three showing a combination of the two.

The following descriptions of vessels selected for illustration present the principal features that characterize each group.

EARTHENWARE OF ALGONQUIAN TYPE

In plate XVIII, *a*, is shown a fragment of the rim of a jar of fine texture, the surface of which evinces the care and skill employed in the levigation, mixing, and manipulation of the paste, in the selection and proper addition of the tempering medium, and in the preliminary drying of the vessel and the subsequent firing. The surface was carefully smoothed and semi-polished after the addition of the final slip in preparation for the application of the design. The decorative element consists of a series of small, uniform indentations or punctures, applied with a dentate wheel, each tooth of which had been delicately pointed. So skilfully was the ornamentation applied that its effect is highly esthetic. The rim is narrow and outcurving, and the lip and inner surface are covered by a continuation of the body design. This specimen is the best example of Algonquian fictile work that the mound produced.

A portion of the rim and side of a large jar is shown in plate XIX. The body is paddle-marked, resulting in a uniform mottled surface. The neck has been smoothed, but between it and the body there is no shoulder. At the point where the recurring of the neck portion begins there is an encircling band formed by two impressed lines. The neck is broad and is spanned by six angular impressed lines, arranged in pairs, extending from the encircling band to the lip of the rim.

The next specimen to be considered is half of a symmetrical jar with gently tapering sides. It is a typical example of the small,



(a) PERFECT JAR, AND (b) FRAGMENTARY JAR OF IROQUOIS TYPE

b

undecorated cooking vessels (pl. xx, *a*). The body is covered with textile or cord-wrapped paddle-marks, the neck has a series of wheel-marks applied horizontally, and the lip is ornamented with an impressed line evidently applied with a similar tool. Height 6 in.; diameter $4\frac{1}{4}$ in.

Another typical jar of Algonquian manufacture is shown in plate XXI. It has tapering sides and is rounded below. A portion of one side and part of the rim are missing. The body surface is covered with deeply malleated paddle-marks, which also originally covered the neck, but the latter area has been smoothed, thereby practically obliterating the ornamentation. The rim is narrow and has a deeply cut, cross-hatched design evidently made with a sharp scarifying tool. The lip of the jar is plain. Height $8\frac{1}{2}$ in.; diameter $7\frac{1}{4}$ in.

A large fragmentary jar, the rim of which is practically complete, is shown in plate XX, *b*. It is of the heavy, thick-walled type, and the body is covered with a deeply impressed ornamentation made with a cord-wrapped paddle. The neck is covered with a design made probably with a cord-wrapped rouletting implement; the base is margined with an encircling band of wheel impressions, and there is a similar band at the upper edge. The lip of this vessel is sloping and is decorated with rouletting which extends to a depth of an inch on the inner portion of the rim. Diameter of rim, $9\frac{3}{4}$ in.

Another fragment of a large vessel is represented by the upper portion of a jar, including part of the rim (pl. XVIII, *b*). The body is covered with a cross-hatching of cording or other textile applied by paddling; the lines thus made are finer than any displayed by the other jars. At the depression of the shoulder and separating the body design from that of the neck is an encircling band of round punctate marks. The neck ornamentation consists of horizontal cord-markings margined on its upper part by a series of oblique cord-lines which cover the space between the main design and the outer edge of the lip. The sloping lip is ornamented with a single encircling cord-line, and the inner part of the rim is cord-rouleotted. Diameter of rim, $9\frac{3}{4}$ in.

EARTHENWARE OF IROQUOIS TYPE

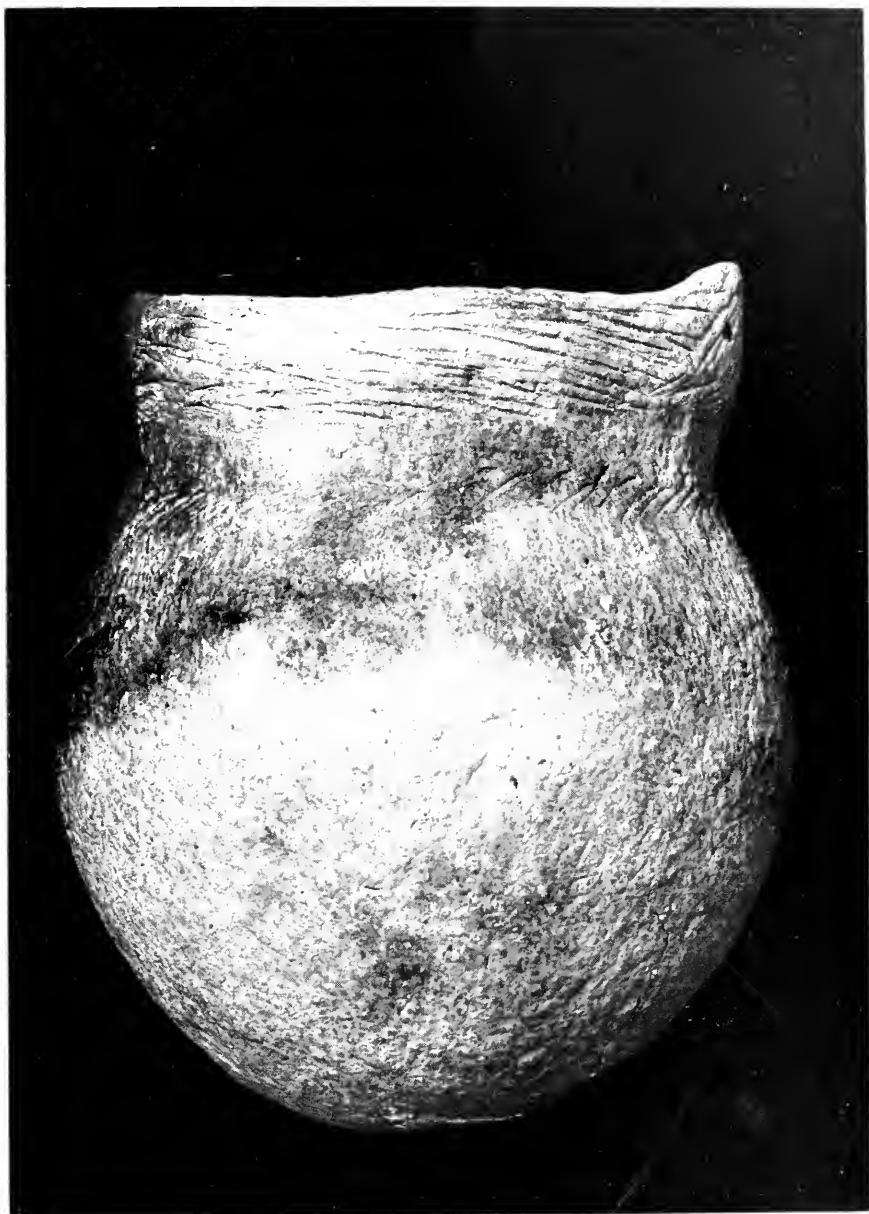
The Iroquois type of earthenware is characterized by a smooth body surface, devoid of paddle-marks; it is usually undecorated, and as a rule has one or more rim-projections. The clay is tempered with sand or other material, finely ground, which accounts for the fine texture as compared with the majority of Algonquian vessels with their coarse shell-tempering. Many of the Iroquois vessels are finished by means of a polishing stone or other object that imparted the required smoothness.

The following descriptions, with the accompanying plates, give an idea of the character of the vessels of this type found in the mound.

Plate XXII, *b*, shows a fragment of a typical rim of an Iroquois vessel on the lip of which is a single upward projection. The jar is of the type that has the angles of the frieze emphasized by ornaments in the form of conventional human faces; this frieze is very broad, and the angle underlying the projection referred to shows one eye and the mouth of such a face. The spaces between the angles are filled with a pattern composed of angular lines and dots, and at the point where the rim joins the neck there is an encircling series of short, deep incisions. The walls of this jar are relatively thin and the ware is light in color.

Another example of human-face ornamentation is illustrated by a fragment of the rim and side of a typical Iroquois jar with plain body as shown in plate XXIII, *b*. It has an abrupt shoulder, and the neck is concave. One lip-projection is shown, and the space below it, a portion of the frieze, is emphasized by a conventionalized human face, on each side of which is a design formed of oblique and horizontal lines, the latter bordered with punctate markings. On the projection of the lip, already referred to, directly above the face on the frieze, is a second face, similar in form and flanked with incised lines.

A typical Iroquois jar (pl. XXIV, *a*) was presented by Mr. Randall D. Sayre, of Milford, Pa., by whom it was found on the southern shore of Minisink island directly opposite the Minisink cemetery. The vessel was practically perfect when found, but while in the



FRAGMENTARY JAR SHOWING A COMBINATION OF ALGONQUIAN AND IROQUOIS TYPES

possession of its original owner it was accidentally broken. The jar is of the typical globular form; the body is symmetrical and the surface smoothly finished. A line of short, slanting incisions encircles the base of the neck. The lip-projections were large and rounded, and there was a pronounced rim depression between them. One side of the rim is missing, but there can be no doubt that it belonged to the "two-point" type. The main portion of the frieze is decorated with oblique incisions, and above this encircling band there is a series of irregular, horizontal lines. Height 7 in.; diameter $6\frac{1}{2}$ in.

Plate xxv, *a*, illustrates the only perfect jar found in the mound; it is a symmetrical vessel of the "four-point" type, and has an elaborately decorated frieze, an incurved neck, and a body that tapers gracefully from the shoulder to the semi-conic base. The surface of the body is smooth, and in its entirety the jar is a good example of Iroquois ornate earthenware. The top of the vessel is squarish, but instead of the angle projections usual in receptacles of this class, there are two almost level sides, with the opposing ones higher and gracefully rounded. The lip is flat and without decoration save on the outer edge which is embellished with a line of small, punctate dots, below which are three encircling, incised lines. The encircling band of design covering the major part of the frieze is composed of an intricate series of incised pyramids formed of lines and dots, the intervening spaces being filled with similar lines. Diameter of body, $5\frac{3}{4}$ in.; diameter of rim, $4\frac{1}{2}$ in.; height, 7 in.

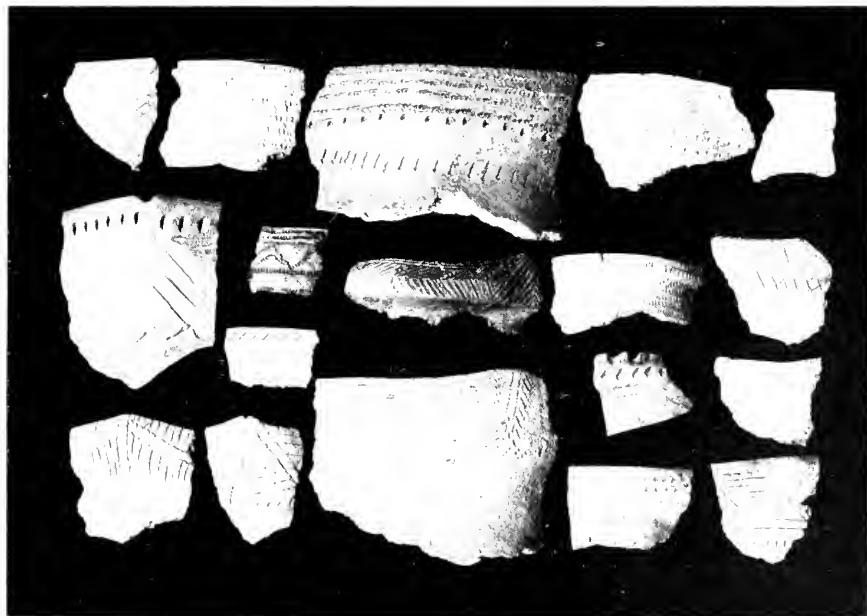
Among the fragmentary Iroquois vessels there were only a few that formed parts of large jars. One of these is shown in plate xxiv, *b*. It is of dark color; the body, shoulder, and neck are plain; the lip is missing. The frieze design is formed by heavily incised lines forming pyramids, the intervening spaces being filled with horizontal lines. The lower margin of the frieze has a row of indentations. Height 10 in.; diameter 9 in.

The complete rim and about half the body of a large jar (pl. xxiii, *a*) was found in Pit 2, in the eastern part of the mound. The body is plain; the neck is broad and incurved. The rim-

collar, or frieze, is broad and angular, causing the mouth of the jar to be practically square. The four angles of the frieze are emphasized by low, rounded lip-projections, encircled on the lower part by a pseudo-textile ornamental design consisting of combinations of straight incised lines and dots arranged in zones. At each angle there is a pyramidal figure, and between the angles are broad, vertical, incised bands, above which is a series of four incised encircling lines. The frieze is bordered by marginal rows of indentations, those on the upper portion having been applied with the edge of an angular punch, the lower being larger and deeper, having a slight node in the upper part. The form of this vessel was evidently suggested by the bark receptacles of the region, the curves and angles of the upper part practically duplicating certain birch-bark vessels. Height 11 in.; diameter $9\frac{1}{2}$ in.

Plate xxii, *a*, illustrates the rim and upper portion of a large jar. As in most vessels of this type, the body portion evidently was plain. The neck also was without decoration, and the upper part is broadly outcurved, giving the frieze a decided overhang. The shoulder is ornamented with a broad band consisting of four incised encircling lines bordered on the upper part by short, oblique incisions and on the lower margin by lightly incised, oblique, ray-like lines. The top of the frieze is tripointed. Two of the line projections are comparatively low and pointed, and are equal in size; the third is higher, much larger, and rounded, and is accentuated by a series of eleven transverse, impressed notches. The lip is square and is unembellished save by a row of slight notches on the outer edge, and, as noted, on the large projection. The frieze is circular, there being no suggestion of angles below the projections; its major part is covered with a closely-applied series of oblique incisions, and the upper portion is bordered by an encircling band composed of four wavy lines. Diameter of rim, $8\frac{1}{2}$ in.

A fragment of a small jar is shown in plate xxv, *b*. The body surface shows the typical smooth finish of Iroquois ware, and is without decoration save on the shoulder, where there is a band of slanting, wheel-made lines. The frieze is decorated with a band of four horizontal fillets having the appearance of heavy coiling; and



FORTIONS OF RIMS OF VESSELS SHOWING TYPES OF FRIEZE DECORATION

above and below, the frieze is margined by a line of slanting, wheel-made lines. The edge of the lip is plain.

EARTHENWARE SHOWING ALGONQUIAN AND IROQUOIS TECHNIQUE
COMBINED

As before stated, among the fragmentary vessels found in the mound were four that combined the technique of both the Delawares and the Iroquois.

Plate xxvi shows half of a small globular jar of Iroquois shape, the surface of which is paddle-marked. The frieze is covered with incised lines, and the general effect is crude in comparison with typical jars of either the Algonquian or the Iroquois. There is a lip-projection, and the frieze below it is covered with crudely scratched lines. Encircling the central portion of the neck is an incised band—an unusual neck decoration. Height $5\frac{1}{2}$ in.; diameter $4\frac{3}{4}$ in.

A fragment of the rim portion of one of these jars has a lip-projection that characterizes Iroquois vessels, but the mixture of the clay and the general treatment of the surface are purely Algonquian. Two other rim fragments show similar characteristics, but whether made by the Delawares or not, they are Algonquian in texture, form, and general treatment.

PITS CONTAINING JARS

The pits containing fragmentary jars, and in one instance a perfect one, are represented by dots on the plan of the mound (pl. II). These pits in most instances were several feet from the nearest skeleton, Pit 11, for example, being more than a hundred feet distant from Skeleton 3.

All the pits contained sherds representing either all or a portion of a jar, and in many of the pits were fragments of several jars. In most of the pits the sherds showing decoration were deposited with the ornamented surface down, but whether this was intentional could not be determined.

The rims of most jars are decorated with a frieze. As this part of the vessel usually is the only ornamented portion, the rim fragments present many of the decorative elements employed by the Minisink potters and in the absence of complete jars are worthy

of study. Many sherds showing rim-decorations were found. A number of these, exhibiting distinctive designs, are illustrated in plate XXVII.

The presence of animal bones and charcoal in most of the pits seems to indicate that the deposit had been made in connection with a feast, the remains of which were buried with the vessels.

Objects of a utilitarian nature were found in some of the pits; these included hammerstones, lap-stones, arrowpoints, a fragment of a pipe, etc., but in none of them were ornaments such as were found with the burials.

The following descriptions of the individual pits indicate the depth of the deposits, their general character, and the material found in them.

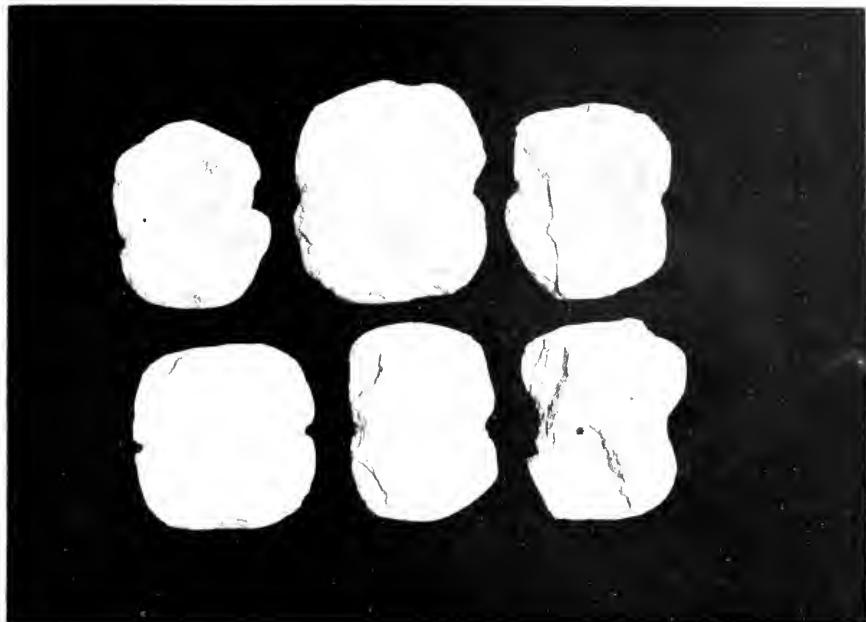
Jar 1, found southeast of Skeleton 2, was represented by a rim fragment which lay in a disturbed area 2 ft. 9 in. beneath the surface.

Jar 2 was found at the bottom of a discolored area, southeast of Skeleton 4, the fragments being grouped with the outer or design surface down as though they had been placed in the positions in which they were found, not merely thrown into the hole. They were 2 ft. 9 in. below the surface and occupied a space about two feet in diameter. A great many pieces of charcoal were associated with the fragments. The entire rim was found, also part of the base and sides. This jar is shown in plate XXIII, *a*.

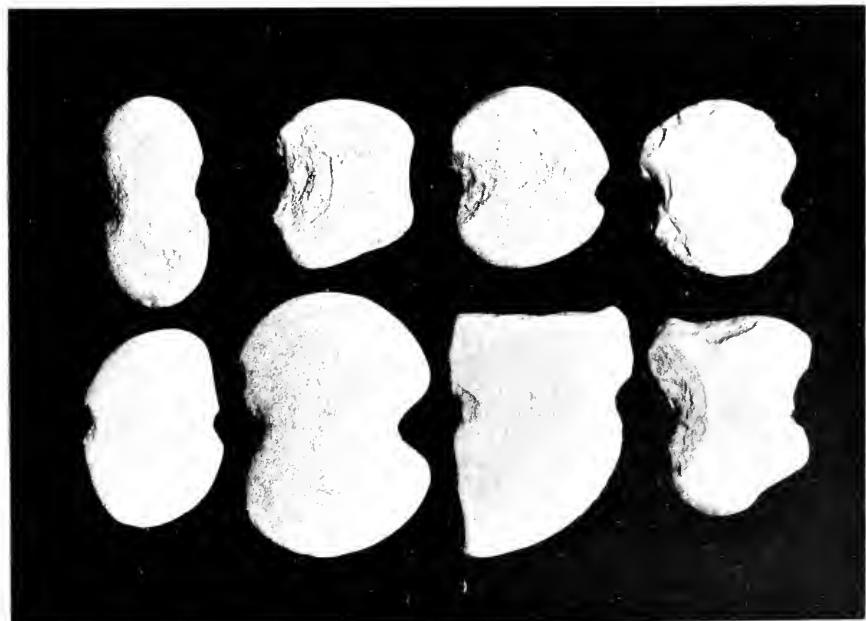
Jar 3 was northwest of Skeleton 7 and was represented by a mass of fragments scattered over a space two and one half feet in diameter. It was near Skeleton 7, but evidently had no connection with it, as there were two distinct disturbed areas over the two deposits. The fragments were those of a very large jar and were so placed as to have the appearance of a mosaic, most of them being on the same level.

Jar 4, northwest of and near Skeleton 13, was represented by a number of fragments scattered over an area two feet in diameter. It was 3 ft. 2 in. below the surface, and at the bottom of a discolored area, but no animal bones were found with it.

Jar 5 was southeast of Skeleton 27; it consists of half of a



a. NET-SINKERS OF THE SMALL THIN TYPE



b. NET-SINKERS OF THE PEBBLE TYPE



a. GRINDING STONE



b. DOUBLE-HANDED HAMMERSTONES

slender vessel and was found 17 in. below the surface, in a disturbed area. Near it were several large stones, some charcoal, and a few potsherds. (Pl. xxvi.)

Jar 6, found 11 in. below the surface, northeast of Skeleton 28, is represented by a fragment of a very thick jar, mingled with which were sherds of other vessels. There were also three hammerstones, an arrowpoint, and a fragment of a pottery pipe. As in the former deposits, animal bones, shells, and charcoal were found in association.

Jar 7 was southwest of Skeleton 27 and was represented by about half the original vessel; it was lying with the design side down and with the rim portion directed toward the west. Grouped about it were fragments of other vessels, all of the decorated pieces having the ornamented surface down. The deposit contained also five large, heavy, pitted hammerstones, a lap-stone, a number of split stones, and the usual charcoal and animal bones. The deposit lay 3 ft. below the surface.

Jar 8, southwest of Skeleton 28, was in a fragmentary condition and the pieces were massed in an area eighteen inches in diameter. It was 18 in. below the surface, and was surrounded by the usual charcoal and animal bones. The decorated pieces were all lying with the design surface down.

Jar 9, northwest of Jar 3, was fragmentary and the pieces were grouped, all the ornamented frieze portions lying with their decorated sides down. It lay 2 ft. 6 in. beneath the surface.

Jar 10, southwest of Skeleton 26, was 19 in. below the surface, in a discolored area and broken into many pieces. Two of the rim fragments were lying with the design side up. In the center of the mass were two stones.

Jar 11 was found in a test trench and lay 123 ft. south of Skeleton 1. It was represented by fragments found 1 ft. 8 in. below the surface. Three or four large pieces were lying with the design side up, but with these exceptions the sherds lay with the ornamented surface down, as in most other cases.

Jar 12 was found 4 ft. 4 in. below the surface, southeast of Skeleton 3, and was accompanied with a fragment of a pipe.

Jar 13, fragmentary, was found north of Skeleton 17, 2 ft. 6 in. below the surface, all the decorated faces downward.

Jar 14, also fragmentary, was south of Skeleton 61 and lay 2 ft. 8 in. beneath the surface. All the decorated sides were down.

Jar 15, entire, was west of Skeleton 56 and was found 1 ft. 8 in. down, lying on its side, inclined at an angle of 30°. The rim was upward. (Pl. xxv, *a*.)

Jar 16, broken, was east of Skeleton 63 and lay bottom upward 2 ft. 2 in. below the surface.

Jar 17, broken, was found only 2 in. below the surface. It was west of the burial area and 30 ft. northwest of Skeleton 63.

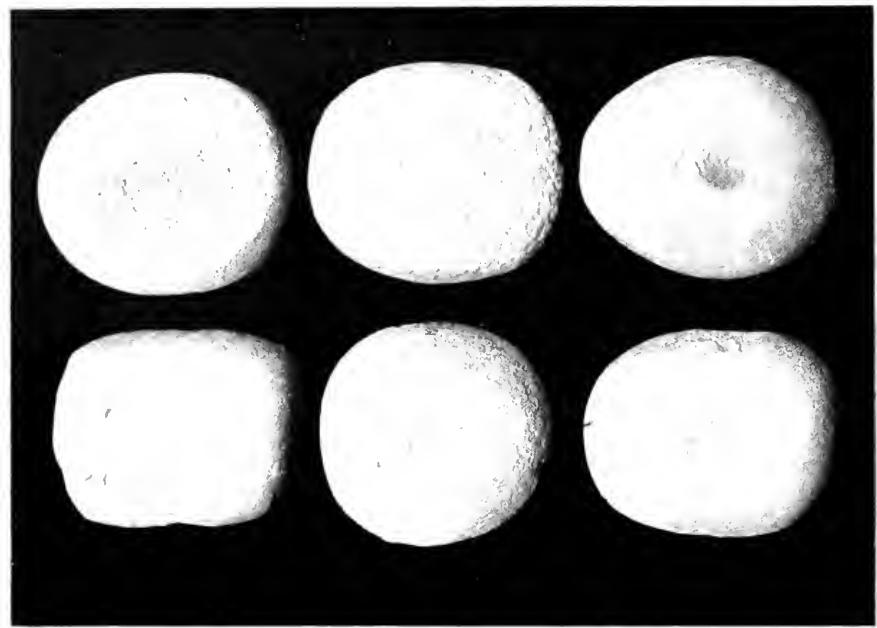
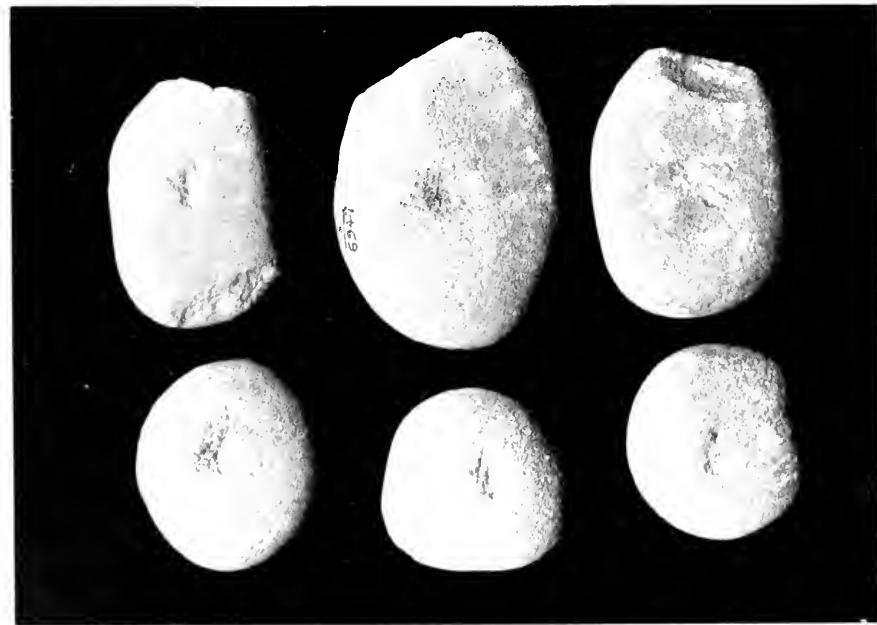
Jar 18, likewise broken, lay 1 ft. 8 in. down. It was northeast of Jar 17.

Jar 19, north of Skeleton 60, and also broken, was found 4 ft. below the surface.

OBJECTS OF STONE

Objects of stone are represented by most of the artifacts of this material known to the region under discussion.

As the Munsee of the Delaware River region must have subsisted to a considerable extent on fish, one would expect to find net-sinkers in their refuse heaps and on their village sites. Our excavations resulted in the finding of 166 of these objects, many of them at a depth of more than three feet. Three types of net-sinkers are represented. One of these types, shown in plate xxviii, *a*, is made of a thin section of sandstone, or of other stone having a regular line of cleavage. Many of this class are quite small, measuring only 2 in. in diameter; there are 99 of these. Net-sinkers of the second type (pl. xxviii, *b*) are made from pebbles. The edges of the specimens of the first type were chipped or ground to a greater or less extent, whereas in the second type the only evidence of workmanship is in the notches chipped or ground in the opposing edges of the stone. Of this class there are 48 examples in the collection. Those of the third type also are made of pebbles, ovoid or irregular in shape, and each has an encircling groove usually pecked in the surface. As in most



PITTED HAMMERSTONES

eastern localities, this type was the most unusual, only 19 having been found.

Hammerstones of many sizes and shapes were recovered; these range from the heavy, two-handed hammers, some of which measure 9 in. in length by 3 in. in thickness, to the very small ones used for pecking the surface of implements in the process of their manufacture. There are eight of the heavier class, two of which are shown in plate XXIX, *b*. These are natural boulders, but all show evidence of use, some being deeply pitted, while others have but slight artificial depressions.

Small pitted hammerstones from the mound are shown in plate XXX. There are 49 of these, ten of them having been used secondarily as rubbing stones.

Various other forms of hammerstones are represented, many of them being elongate, in which cases one of the ends of the implement exhibits wear.

There are few grooved axes and mauls, three of the former and one of the latter being the only ones unearthed.

Ten smoothing stones were found, and there are six large, flat stones that evidently had been used for grinding. One of these, shown in plate XXIX, *a*, measures 17 in. by 15 in., and is 3 in. thick. Both surfaces are smooth, but the surface presented in the illustration shows considerable wear. The second in size is in the form of an irregular disc, averaging 9 in. in diameter and $2\frac{1}{2}$ in. in thickness. The edges of both of these specimens have been worked, but the smaller one has the entire edge chipped. Implements of this class are sometimes called "lap-stones," but as many of them are large and heavy and exhibit use for grinding purposes, they were probably employed for grinding grain as are the metates of the Southwest.

In the collection are eighteen celts, only three of which are perfect, and four chisels which are shown with some of the celts in plate XXXI, *a*. Included in the collection are also sixteen pestles (examples of which are shown in pl. XXXI, *b*), hoes (pl. XXXII, *a*), scrapers (pl. XXXIII, *b*), pecking stones, "turtle-backs," discs, arrow and spear points (pl. XXXII, *b*), drills, reamers, two sinew

smoothers (shown in plate XXXIV, *b*), a fragment of a large discoidal stone, catlinite beads, and a stone shaped as if for use as a pendant or gorget, $4\frac{5}{8}$ in. long, $4\frac{1}{4}$ in. wide, and $\frac{1}{2}$ in. thick (pl. XXXIII, *a*). This object was not drilled; but another, somewhat shorter and thicker (pl. XXXIII, *b*), shows the original drilling, which had broken out, as well as two attempts to drill new holes.

While conducting the explorations in the Bell Mound a large stone spade was found on adjacent property, but owing to its size is worthy of mention here (pl. XXXIV, *a*). This object is made of a hardened shale approaching slate, from which flakes have been chipped; it measures $10\frac{1}{2}$ in. in length and 5 in. in width, and the point shows wear from use. Spades of this size and type are not often found in the region under consideration, and it is possible that it may have been derived from another section, although the material might be from the Delaware valley.

A catlinite pipe was found by a farmer in a field a short distance from the Bell farm and was acquired from him for the collection. This specimen (pl. XXXIII, *a*) is $1\frac{1}{2}$ in. long and $1\frac{1}{4}$ in. high. The edges are ornamented with incised designs as shown in the illustration. As beads of catlinite, or pipestone, were found with skeletons as well as in the general excavations at Minisink, barter for this material may have been conducted by the Delawares and Iroquois in early times. Loskiel,¹ in speaking of the Delawares, says:

They are fond of a handsome head for their pipe, and prefer those made of red marble. But these are only used by the chiefs and captains, this sort of marble being rare, and found only on the Mississippi.

Dr Charles Rau,² writing in 1872, says:

Not long ago a small Catlinite pipe of unusual shape was sent to me, which had been ploughed up in a maize-field near Centreville, in Southern Illinois (St. Clair County). Such older specimens are even met in the New England States, near the Atlantic coast. The collection of the Smithsonian Institution contains some pipes and ornaments made of

¹ *History of the Mission of the United Brethren Among the Indians in North America*, London, 1794, p. 51.

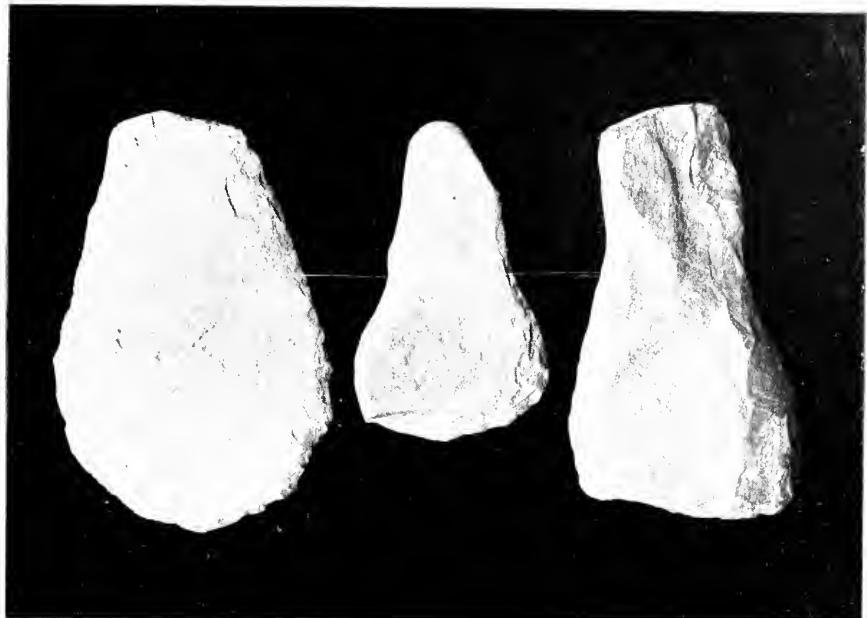
² Ancient Aboriginal Trade in North America, *Smithsonian Report* for 1872, p. 372.



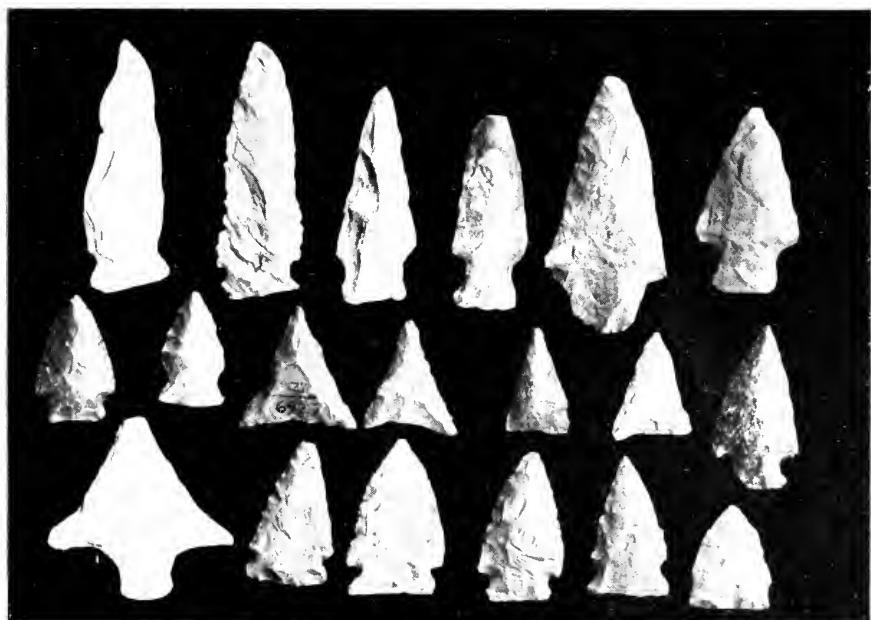
a. CELTS AND CHISELS



b. PESTLES



a. HOES



b. ARROWPOINTS

Catlinite, which were taken from Indian graves in the State of New York, or obtained from the Iroquois still inhabiting the same state. The raw or worked red pipestone, therefore, constituted an article of barter, which was brought from its original place of occurrence to the present Eastern states of the Union.

OBJECTS OF SHELL

Independent of burials were several deposits of freshwater clam shells, found in connection with feast-pits, but none of the shells showed signs of use. Snail-shells also were found in some of these pits, but whether they had been buried intentionally or had simply been in the surface soil with which the pits were filled could not be determined. Among the worked-shell objects, not associated with burials, was the columella of a small whelk, a few fragments of sea-shells, a tubular bead, and a number of fragments of other beads.

OBJECTS OF BONE AND ANTLER

Comparatively few bone implements were found in the mound, but many bird and mammal bones were present in the feast-pits associated with burials. The bird-bones were mostly those of the turkey; the mammals represented were the deer, elk, dog or wolf,

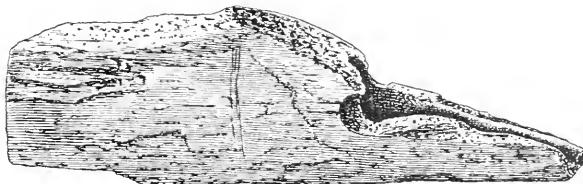


FIG. 21.—Bone knife handle.

fox, beaver, and a number of smaller animals. Bones of the larger mammals, split for obtaining the marrow, were found in all the feast-pits. A few of the bones showed the marks of animal teeth.

Among the bone objects found apart from the graves is a knife-handle (fig. 21), in fragmentary condition, but sufficiently preserved to show that it had been 3 in. in length and 1 in. in width. A hole

had been drilled through it for the insertion of a peg to hold the blade in place.

Ten bone awls were recovered. Seven of these are made from split fragments of deer-bone, the ends of which have been pointed. Plate x, b (*a-e*) are of this type; *f* was found with Skeleton 44; *g* is an unfinished awl of the slender type.

One bead, made from a bird-bone, the ends of which are squared, was found; likewise the toe-bone (phalanx) of a deer, one end of which has been cut off, the other perforated, probably for use as a gaming die; and a few bones that show evidence of cutting.

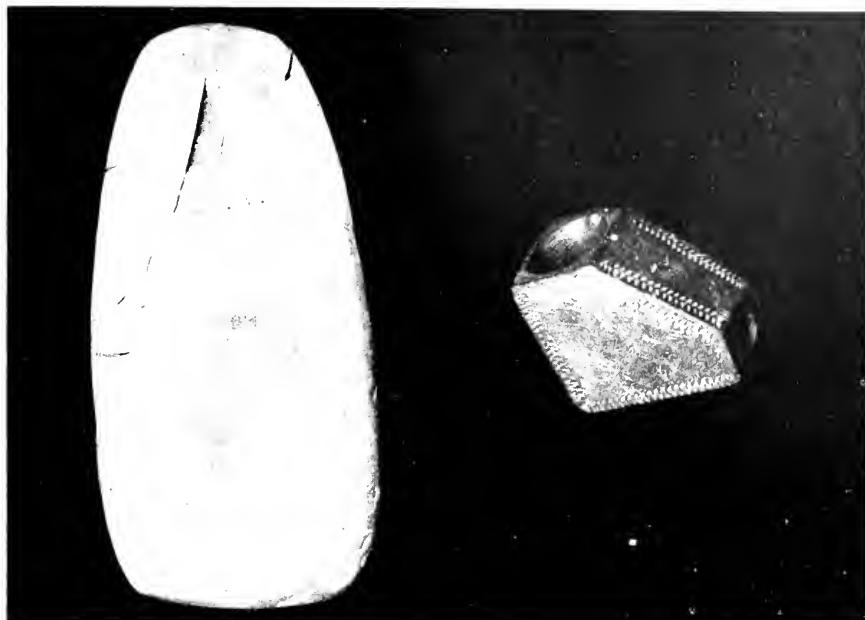
We may include here a fragmentary drinking-cup made from the carapace of a box-turtle.

Many pieces of deer-antler were found, but only a few that exhibit signs of artificial treatment. Some of the larger pieces have been gnawed by animals (pl. x, A, *a*), and others show the marks of cutting implements (pl. x, A, *c*). Fourteen prongs of antler, some of which were probably used as bodkins, are among the objects recovered. There are also two antler arrowpoints (pl. x, A, *b, d*), one short and massive, measuring 2 in. in length, the other shorter, more delicate in form, but not so well preserved. These arrowpoints of antler were the only ones found during the course of the investigations.

PIPES

Only one complete native pipe was found apart from burials: this was in the western part of the mound and was lying at a depth of 8 in. below the surface, immediately above a deposit of shells measuring 2 ft. 6 in. in diameter, 2 ft. thick, and 2 ft. beneath the surface. Under this deposit, 3 ft. below the surface, was a layer of burned stones 6 in. thick.

Similar shell deposits were found in other parts of the cemetery. Not far from Skeleton 25 was a mass of ashes and calcined shells measuring 2 ft. by 3 ft., and nearly 3 in. in thickness. It was surrounded by fragments of pottery, charcoal, and animal bones. This deposit lay 14 in. below the surface and had evidently been the result of a mortuary feast-fire.



a. PENDANT-SHAPED STONE FROM THE MOUND, AND CATLINITE PIPE FROM A FIELD NEAR THE BELL FARM



b. A PENDANT AND FOUR SCRAPERS

The pipe above referred to (pl. XII, *c*) is of pottery, is 6 in. long, and was in two pieces. It is of light-colored ware; the stem is flattish on the upper and lower surfaces, broad near the bowl, and tapers to a rounded point at the mouth-piece. The flaring bowl has a projecting rim, the lip of which is decorated with a series of parallel, incised lines.

A fragment of another earthenware pipe, not connected with a burial, was found (fig. 22). The stem had been broken and

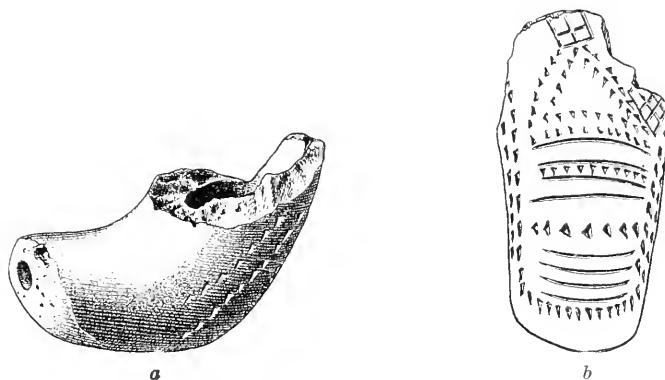


FIG. 22.—Fragment of a pottery pipe (*a*), and the design thereon (*b*).

its end smoothly ground. The bowl also is broken, but the remaining portion shows that it had been decorated with a series of incised lines and angular indentations.

The two pipes described, together with seven pottery stems and a fragment of a pipe-bowl, are the only examples of aboriginal pipes found apart from burials.

Although a number of European trade-pipes were found with skeletons, there was none elsewhere in the mound. Five fragments of stems of clay trade-pipes were found, however, some of which may have been used as beads.

OBJECTS OF METAL

Only one metal object was found aside from those associated with burials. This is the bowl of a brass spoon, drilled at the handle end probably for suspension as an ornament (pl. XVII). A piece has been cut from the edge.

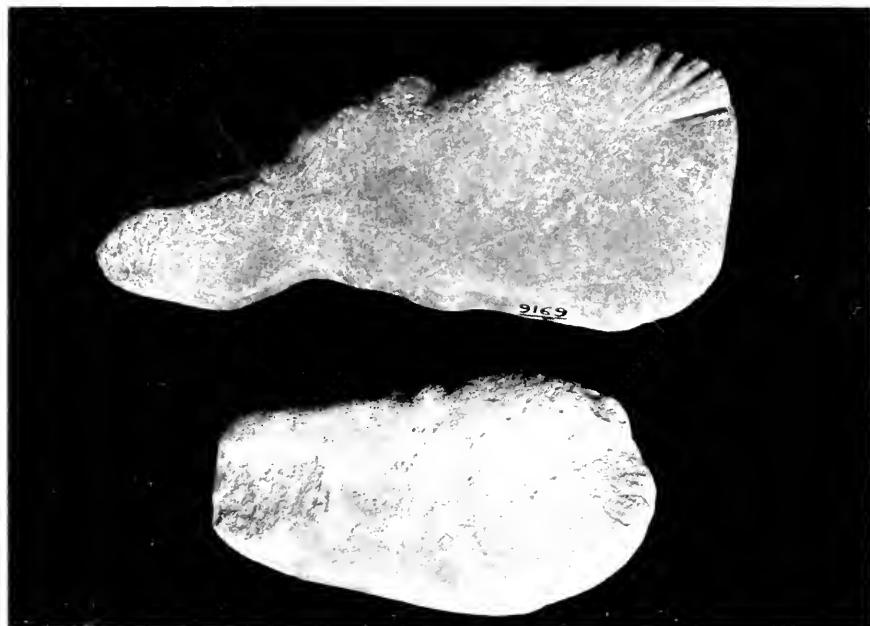
OTHER MATERIALS FOUND

Charcoal was present in all parts of the mound where disturbed earth was encountered. Through the upper soil it appeared in small pieces, but at the bottom of the feast-pits large pieces occurred. Walnuts were found in various parts of the mound, but as a walnut tree is growing on the mound its fruit may have been carried to the lower levels by burrowing animals.

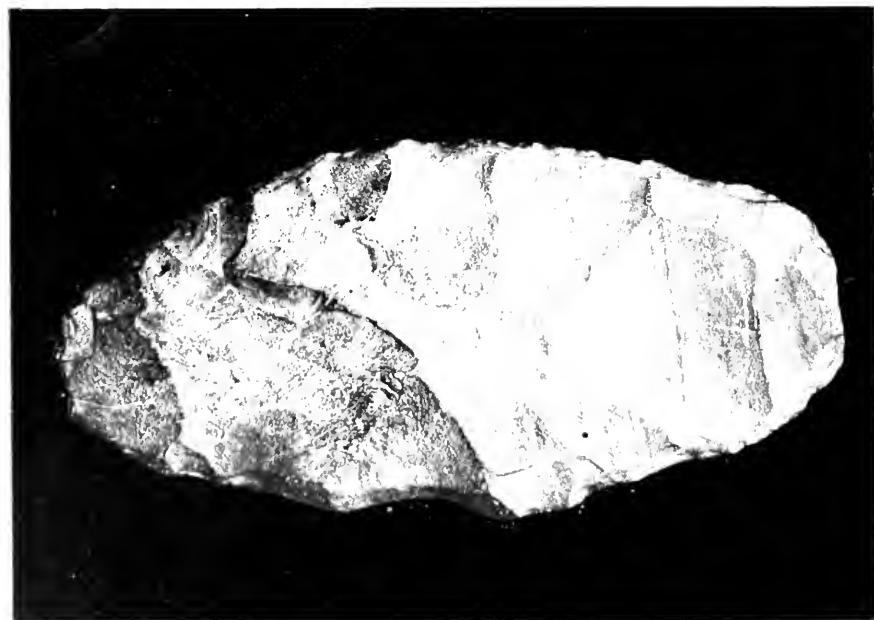
CONCLUSIONS

The cemetery which formed the subject of the investigations described in this paper was associated with a village of the Munsee tribe of the Delaware Indians, as shown by documentary evidence, supported by our archeological studies. The date of the abandonment of the Minisink village has not been determined, but from the information available its inhabitants departed from the locality in the early part of the eighteenth century, after years of contact with white people. This is indicated by the presence of various articles of European provenance in association with the burials, such as objects of metal, trade-pipes, glass beads, etc., and by the fact, as determined by Dr Hrdlička, that one of the skeletons found in the Minisink cemetery is that of a white man. If it is finally shown, as some authorities now believe, that burials of the dead were not made in a fully extended position until after missionaries had impressed their teachings on the aborigines of this region, we have additional evidence, if such were needed, of the effect of the contact of civilization on the natives of Minisink, as twenty-eight of the forty-five burials whose position of burial was determinable, were interred in this manner. In a report of investigations of the Van Etten site, farther up the Delaware river, near Port Jervis, New York, some of the graves contained wooden coffins, and in each such case the associated burial was in an extended position.

The exploration of the Minisink cemetery has furnished considerable objective material for comparative study, but more is required. It is regretted that a greater number of perfect vessels of pottery was not recovered, as the ceramic art of this Algonquian



b. SINEW SMOOTHERS



c. STONE SPADE FROM THE FIELD ADJOINING THE BELL FARM

area is not adequately represented in our museums. Nevertheless, both the entire vessels and the fragmentary jars from Minisink have supplied information of importance with respect to form and ornamentation, and show the influence of Iroquois people on the Algonquian inhabitants of the site in question, under whose domination the latter are known to have been during the early historical period. Other artifacts are likewise of interest and importance: the objects of shell exhibit a considerable range of form and ornamentation, and with the pottery attest to the esthetic sense of the Minisink people. This is the more noteworthy because of the fact that only thirty of the sixty-eight skeletons were accompanied with objects of any kind, and several of these had merely a piece of stone, a rock crystal, a bear's tooth, or a fragment of pottery. In some Eastern burial sites stone implements were deposited with the dead, but none was found with the burials at Minisink, whose inhabitants seem to have conferred on their departed few objects of a utilitarian character. Possibly this discrimination may be another indication of missionary influence. Regarding the mortuary customs of the Delawares, Loskiel,¹ the Moravian missionary, wrote in 1788:

"They used formerly to put tobacco pouch, knife, tinder box, tobacco and pipe, bow and arrows, gun, powder and shot, skins and cloth for clothes, paint, a small bag of Indian corn or dried bilberries, sometimes the kettle, hatchet, and other furniture of the deceased, into the grave, supposing that the departed spirits would have the same wants and occupations in the land of souls. But this custom is almost entirely abolished in the country of the Delawares and Iroquois."

Of particular value to the study of the archeology of the Delaware valley will be the report on the skeletal remains now in preparation by Dr Aleš Hrdlička of the United States National Museum, to which institution the human bones were presented by the Museum of the American Indian. In his study of the crania from the Minisink cemetery Dr Hrdlička has noted an unexpected form, resembling the Shawnee crania far more closely than those of other Algonquian tribes, including even the Delawares. These inter-

¹ *History of the Mission of the United Brethren*, p. 120, London, 1794.

esting observations will be set forth fully in Dr Hrdlička's report, which will include comparative data on the crania of the tribes which formerly occupied the Atlantic seaboard.

The valley of the Delaware still offers many possibilities in the way of archeological research. A careful survey will no doubt bring to light numerous village sites of a more ancient period, and their cemeteries will doubtless yield many artifacts of value to the study of our aboriginal tribes. It is hoped that the results recorded in this paper may prove useful to future students of this interesting field.

CONTRIBUTIONS
FROM
THE MUSEUM OF THE AMERICAN INDIAN
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3. *Certain Kitchen-middens in Jamaica.* THEODOOR DE BOOY.
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9. *Pottery from Certain Caves in Eastern Santo Domingo, West Indies.* THEODOOR DE BOOY.

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